TC-V715T

SERVICE MANUAL

AEP Model
UK Model
E Model



SPECIFICATIONS

Recording system
4-track 2-channel stereo
Fast-forward and rewind time
Approx. 90 sec. (with C-60 cassette)
Bias AC bias
Signal-to-noise ratio (NAB, at peak level)

Cassette \ Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)	58 dB	65 dB	71 dB
TYPE II (Sony UX-S)	57 dB	64 dB	70 dB
TYPE I (Sony HF-S)	54 dB	61 dB	67 dB

Total harmonic distortion
1.0% (with Sony METAL-ES cassettes)

Frequency response (DOLBY NR OFF)

TYPE IV cassette (Sony METAL-ES)	30–15,000 Hz (±3 dB, DIN) 30–13,000 Hz (0VU recording)
TYPE II cassette (Sony UX-S)	30–14,000 Hz (±3 dB, DIN)
TYPE I cassette (Sony HF-S)	30–14,000 Hz (±3 dB, DIN)

Wow and flutter 0.07% WRMS (NAB)
±0.2% W Peak (DIN)

Inputs

Line inputs (phono jacks)	Sensitivity	77.5 mV (−20 dB)
	Input impedance	50 k ohms

Outputs

Line outputs (phono jacks)	Rated output level	0.44 V (−5 dB) at a load impedance 47 k ohms
	Load impedance	Over 10 k ohms

Model Name Using Similar Mechanism		New Mechanism
Tape Transport Mechanism Type	DECK A	TCM-CMAY A-5
	DECK B	TCM-CMAY B-17

General

Power requirements
AEP model: 220 V AC, 50/60 Hz
UK model: 240 V AC, 50/60 Hz
E, Saudi Arabia model:
120, 220 or 240 V AC, adjustable, 50/60 Hz
Power consumption
20 W
AC outlet unswitched, 100W max.
Dimensions AEP, Saudi Arabia model:
Approx. 355 × 130 × 325 mm (w/h/d)
($14 \times 5^{1}/_{8} \times 12^{7}/_{8}$ inches)
UK, E model:
Approx. 355 × 130 × 315 mm (w/h/d)
($14 \times 5^{1}/_{8} \times 12^{1}/_{2}$ inches)
including projecting parts and controls
Weight Approx. 4.9 kg (10 lbs 13 oz)

Supplied accessories

Audio connecting cord (2)
Remote control cord (4-pin) (1)

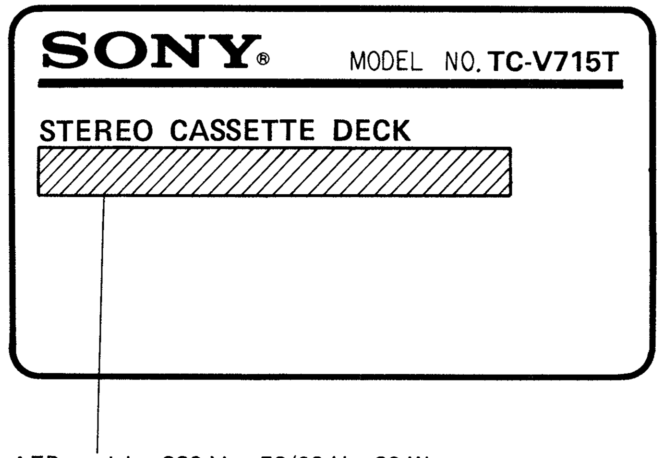
STEREO CASSETTE DECK

SONY®

TABLE OF CONTENTS

MODEL IDENTIFICATION

— Specification Label on Jack Plate —



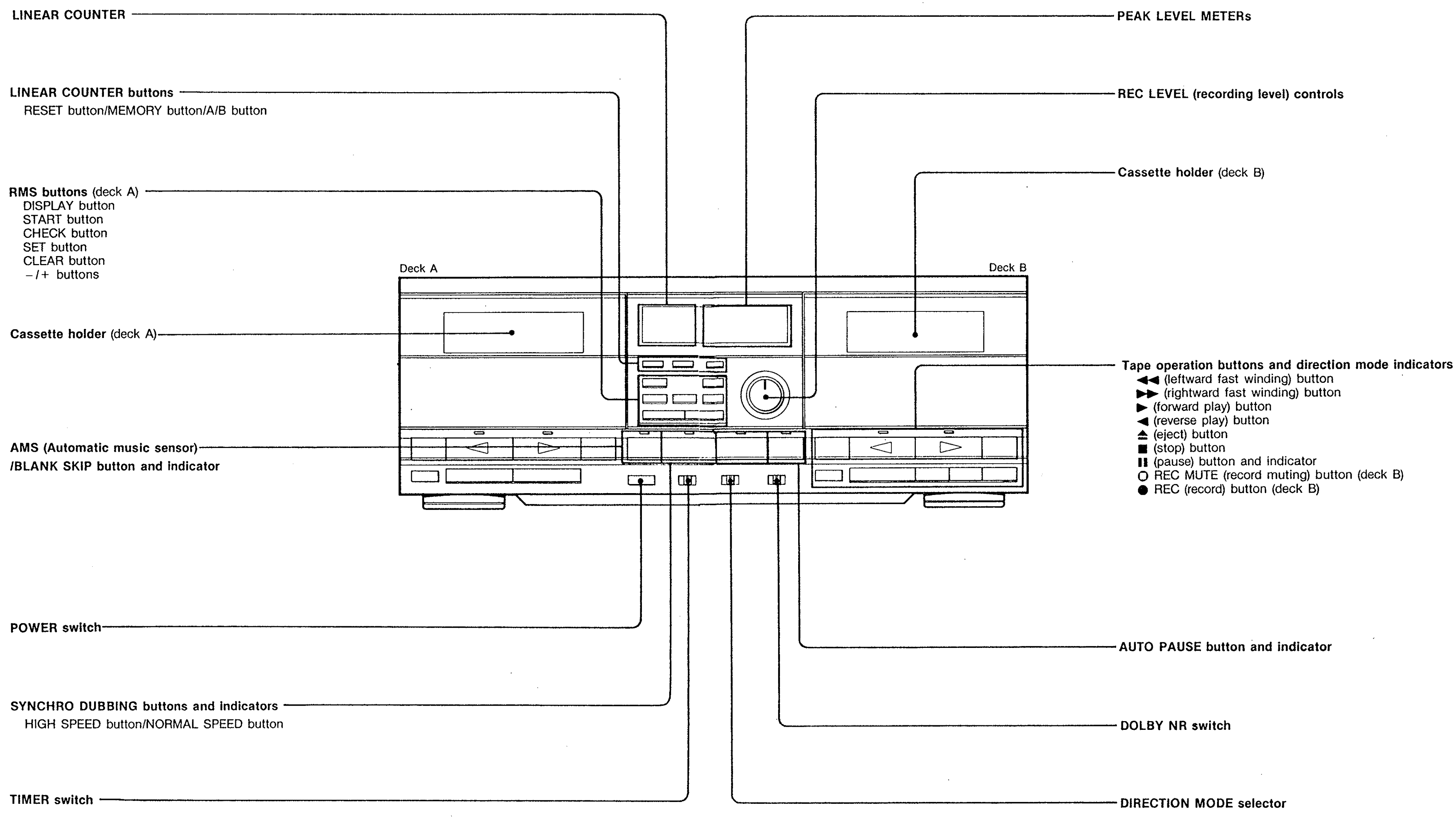
AEP model : 220 V ~ 50/60 Hz 20 W
UK model : 240 V ~ 50/60 Hz 20 W
E, Saudi Arabia model:
120, 220, 240 V ~ 50/60 Hz 20 W

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

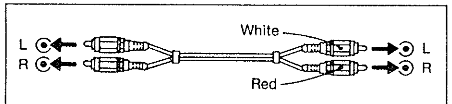
Location of Controls



Connections

Notes on Connections

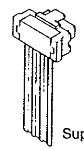
- Turn the power to all equipment off before making any connection.
- Note that the red plug of the supplied connecting cord is for right-channel (R) connection and the white plug for left-channel (L) connection.



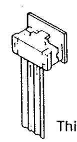
- The connecting cords should be fully inserted into the jacks. A loose connection may cause hum pickup.

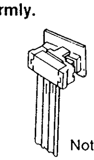
Flat cord connection

Remote control cord (4-pin)

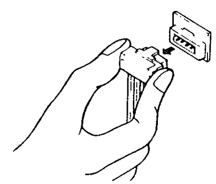


Be sure to insert the cord firmly.

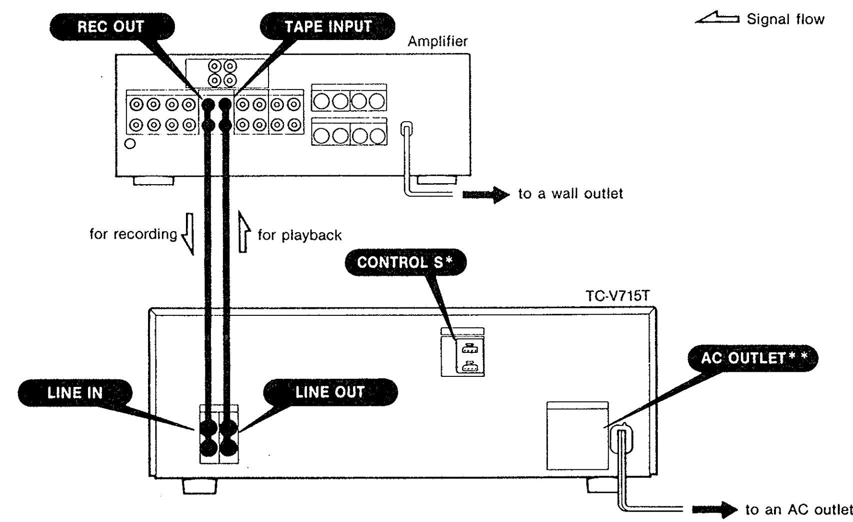




To disconnect the cord, pull out the connector. Do not pull the cord itself.



Connection Diagram



***CONTROL S connectors** (4-pin)
For remote control operation, connect the supplied remote control cord.
IN: Connect to the optional Sony RM-88 wireless remote control unit or the CONTROL S OUT connector of another piece of Sony equipment.
OUT: Connect to the CONTROL S IN connector of another piece of Sony equipment.

****AC OUTLET** (unswitched)
This AC outlet is not controlled by the POWER switch. Connect an audio equipment whose total power consumption is less than 100 W.

CAUTION
Do not connect any electrical home appliance such as an electric iron, fan, TV or other high-wattage equipment to this AC outlet.

The unswitched socket outlet remains live, independently of power switch setting, at all times when the unit is connected to the AC power supply.

SECTION 2
ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head　pinch roller
   erase head　rubber belts
   capstan　idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	25 to 75 g·cm (0.35 to 1.0 oz·inch)
REV	CQ-102RB	25 to 75 g·cm (0.35 to 1.0 oz·inch)
FF/REW	CQ-201B	80 to 180 g·cm (1.12 to 2.5 oz·inch)

Back Tension Measurement
– FWD playback or REW playback –

Mode	Torque meter	Meter reading
FWD	CQ-102C	1 to 10 g·cm (0.014 to 0.14 oz·inch)
REV	CQ-102RB	1 to 10 g·cm (0.014 to 0.14 oz·inch)

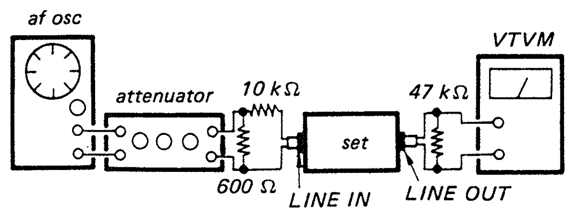
2-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
  DOLBY NR switch:　OFF
  TIMER switch:　OFF

- Standard Record:
  Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

– Record Mode –



Note: The record system adjustment should be performed after shorting the TP501 (record monitor mode).
After record system adjustments, be sure to open the TP501.

Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.2 V (–10 dB)

Standard Output Level

	LINE OUT
load impedance	47 kΩ
output level	0.44 V (–5 dB)

Test Tape:

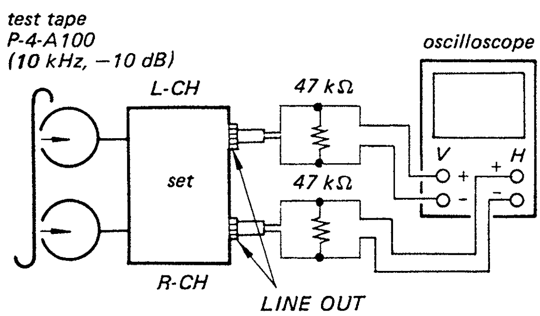
Type	Signal	Used for
P-4-A100	10kHz, –10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/playback Head Azimuth Adjustment

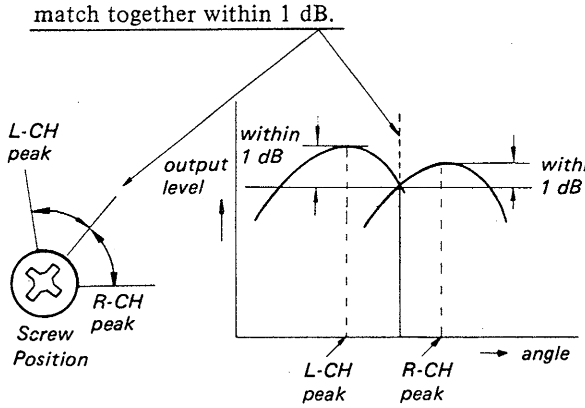
Deck-A | Deck-B

Procedure:

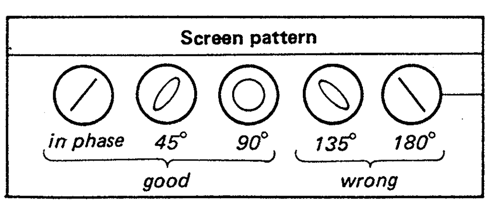
1. Mode: forward playback



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screws until both of output levels match together within 1 dB.



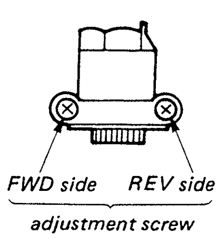
- Phase Check



3. Set in the reverse mode and repeat the steps 1-2.
4. After the adjustment, lock the screws with locking compound.

— record/playback head—

Adjustment Location:

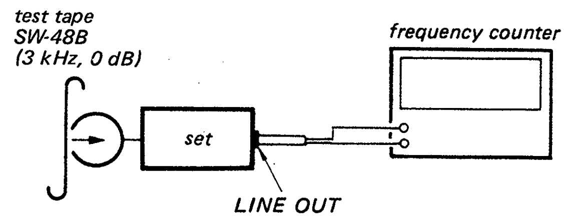


Tape Speed Adjustment

Deck-A | Deck-B

Procedure:

Mode: forward playback



Specifications:

	Deck	Adjustment part	Test pin (TP-601)	Frequency counter
High speed	A	RV601	SHORT	5,960 to 6,040 Hz
	B	RV603		
Normal speed	A	RV602	OPEN	2,980 to 3,020 Hz
	B	RV604		

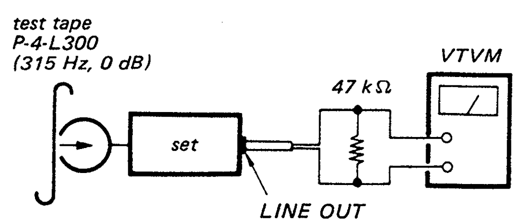
Note: Short the TP601 after playback setting.

Playback Level Adjustment

Deck-A | Deck-B

Procedure:

Mode: forward playback



Adjust { deck A: RV101 (L-CH), 201 (R-CH) / deck B: RV102 (L-CH), 202 (R-CH) } so that the reading on VTVM meets the specification below.

Specification:

LINE OUT level: 0.41 to 0.46 V
(–5.5 to –4.5 dB)

Level difference between channels:
less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Record Bias Adjustment

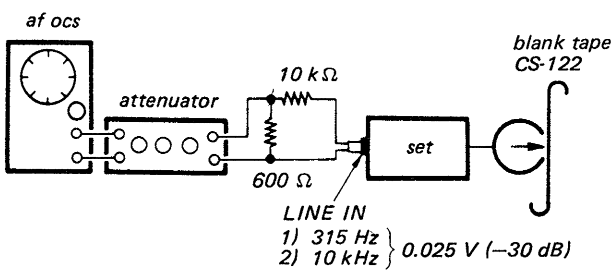
Deck-B

Setting:

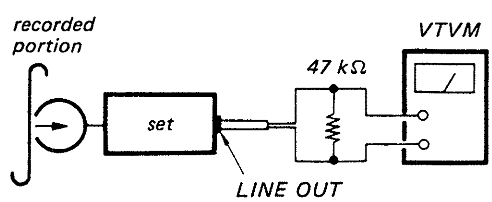
REC LEVEL control: standard record (See page 5.)

Procedure:

1. Mode: record



2. Mode: playback



Play back the tape recorded in step 1.
If the specification is not satisfied, adjust CT301-1 (L-CH), CT301-2 (R-CH) and repeat steps 1-2.

Specification:

The LINE OUT level of 10 kHz signal relative to that of 315 Hz: −0.5 dB to +0.5 dB

Record Gain Adjustment

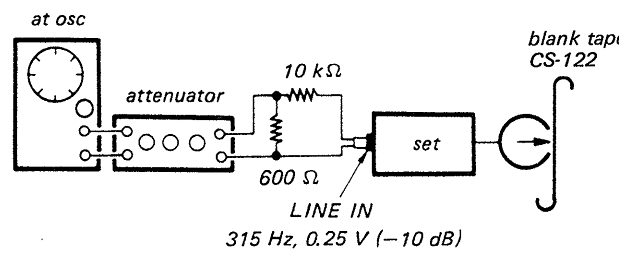
Deck-B

Setting:

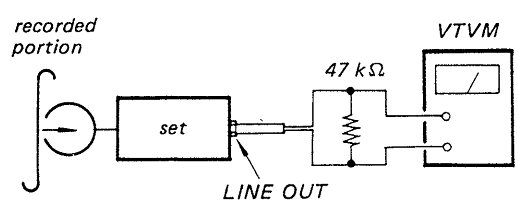
REC LEVEL control: standard record (See page 5.)

Procedure:

1. Mode: record



2. Mode: playback



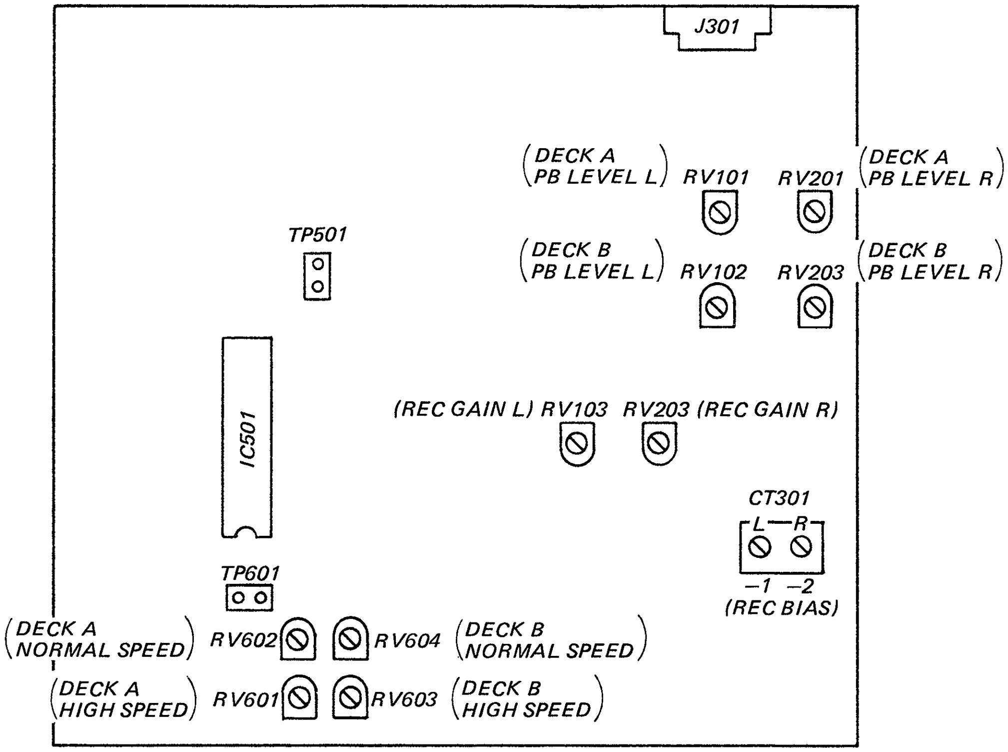
3. Play back the signal recorded in step 1.
   Confirm that the signal level is within the specification below. If necessary, adjust RV103 (L-CH), RV203 (R-CH) and repeat steps 1-3.

Specification:

LINE OUT level: 0.41−0.46 V (−5.5 to −4.5 dB)

Adjustment Location:

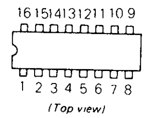
[AUDIO SYSTEM CONTROL BOARD] (Component Side)



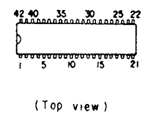
TC-V715T

- **Semiconductor Lead Layouts**

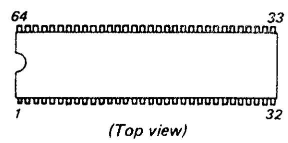
CXA1198P
TC4051BP
TC4052BP



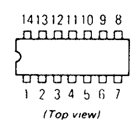
CX20187



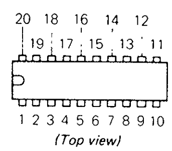
MB88515B-233K
M50940-400SK



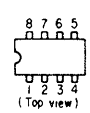
M4066BP
TC4023BP



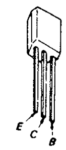
M50761-423P



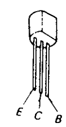
M5218P
μPC4570C-1



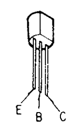
2SA1115
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2SA1348
2SC634-SP
2SC3399
2SC3402



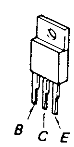
2SA1282-F
2SC3242-E



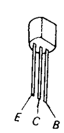
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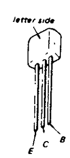
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2SD2012



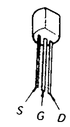
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2SC1815GR



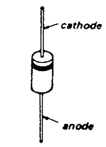
2SD1020



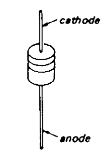
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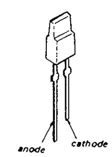
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10E2N



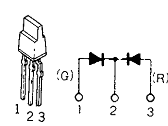
UZL-6L1
UZL-6H3
UZL-7M2
UZL-9L1



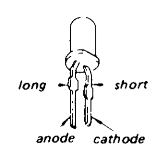
GL8HD34T
GL8HY34T
GL8NG34T



GL-9ND24



SEL2910D



SECTION 3
DIAGRAMS

3-1. PRINTED WIRING BOARDS

- See page 9 for Semiconductor Lead Layouts.

Note:


- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- [ ]← indicates side identified with part number.

• Semiconductor Location

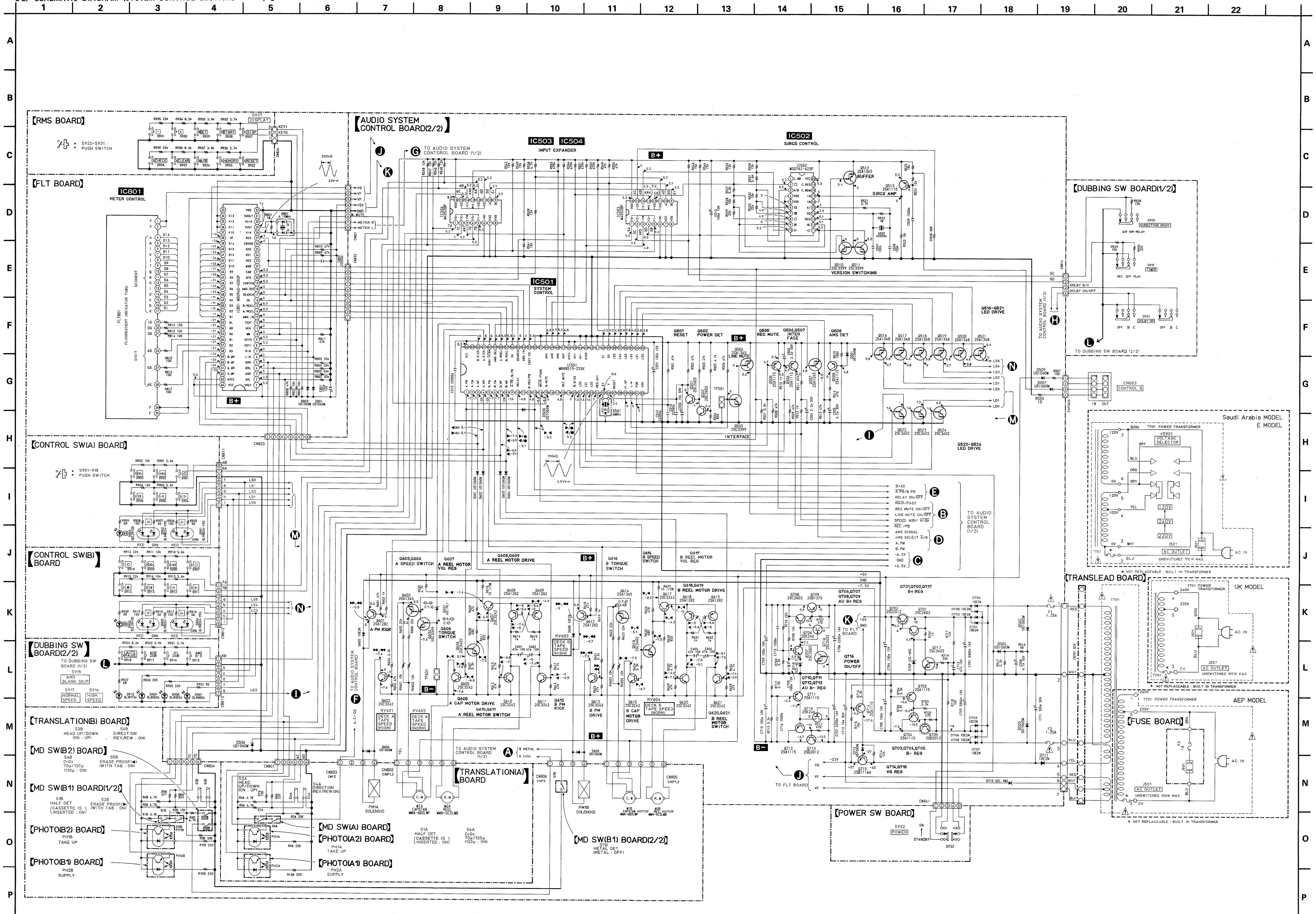
Ref. No.	Location	Ref. No.	Location
D101	E-30	Q101	C-30
D201	E-29	Q102	G-28
D301	G-26	Q201	C-29
D361	I-29	Q202	G-27
D362	I-29	Q301	I-27
D501	H-30	Q302	I-27
D502	B-35	Q303	I-27
D503	B-35	Q304	D-26
D504	D-35	Q305	I-27
D506	H-33	Q306	C-29
D507	E-35	Q361	I-29
D508	G-31	Q362	J-29
D509	E-34	Q381	I-26
D601	I-32	Q382	J-26
D602	H-31	Q383	I-27
D603	H-31	Q384	J-26
D604	H-31	Q385	I-26
D605	I-33	Q386	I-26
D606	J-34	Q501	F-31
D607	I-32	Q502	F-31
D608	I-30	Q503	E-31
D609	I-29	Q504	E-31
D701	C-33	Q505	G-31
D702	C-33	Q506	G-31
D703	C-34	Q507	H-30
D704	C-34	Q508	H-30
D705	B-34	Q510	H-35
D706	B-34	Q511	H-35
D707	B-33	Q512	H-35
D708	B-33	Q513	I-35
D709	C-32	Q516	E-33
D710	C-31	Q517	E-33
D711	C-34	Q518	E-33
D712	C-33	Q519	F-33
D715	D-34	Q520	F-33
D801	I-12	Q521	F-33
D802	I-12	Q522	E-33
D901	C-4	Q523	E-33
D902	C-3	Q524	E-33
D903	B-4	Q601	I-33
D904	C-18	Q602	I-33
D905	C-17	Q603	I-31
D906	B-18	Q604	I-31
D907	C-9	Q605	I-33
D908	C-10	Q606	I-33
D909	C-11	Q607	I-33
D910	C-12	Q608	I-33
		Q609	I-32
IC301	C-26	Q610	I-33
IC302	F-26	Q611	I-32
IC303	C-26	Q612	I-29
IC304	E-26	Q613	I-29
IC305	C-29	Q614	I-31
IC306	C-29	Q615	I-31
IC307	E-28	Q616	I-30
IC308	G-28	Q617	I-31
IC309	G-29	Q618	I-30
IC310	D-30	Q619	I-29
IC311	I-28	Q620	I-30
IC312	I-28	Q621	I-29
IC313	I-27	Q701	C-32
IC501	I-32	Q702	C-32
IC502	I-34	Q703	B-32
IC503	F-34	Q704	B-32
IC504	G-34	Q705	B-32
IC801	I-11	Q706	C-31
		Q707	C-31
PH1A	G-5	Q708	C-31
PH2A	F-2	Q709	C-31
PH1B	G-18	Q710	B-31
PH2B	F-15	Q711	B-31
		Q712	B-31
		Q713	B-31
		Q714	D-33
		Q715	D-34
		Q716	D-31
		Q717	D-31

TC-V715T TC-V715T

TC-V715T TC-V715T



3-2. SCHEMATIC DIAGRAM (SYSTEM CONTROL SECTION) • See page 18 for notes.



Note on Schematic Diagram:

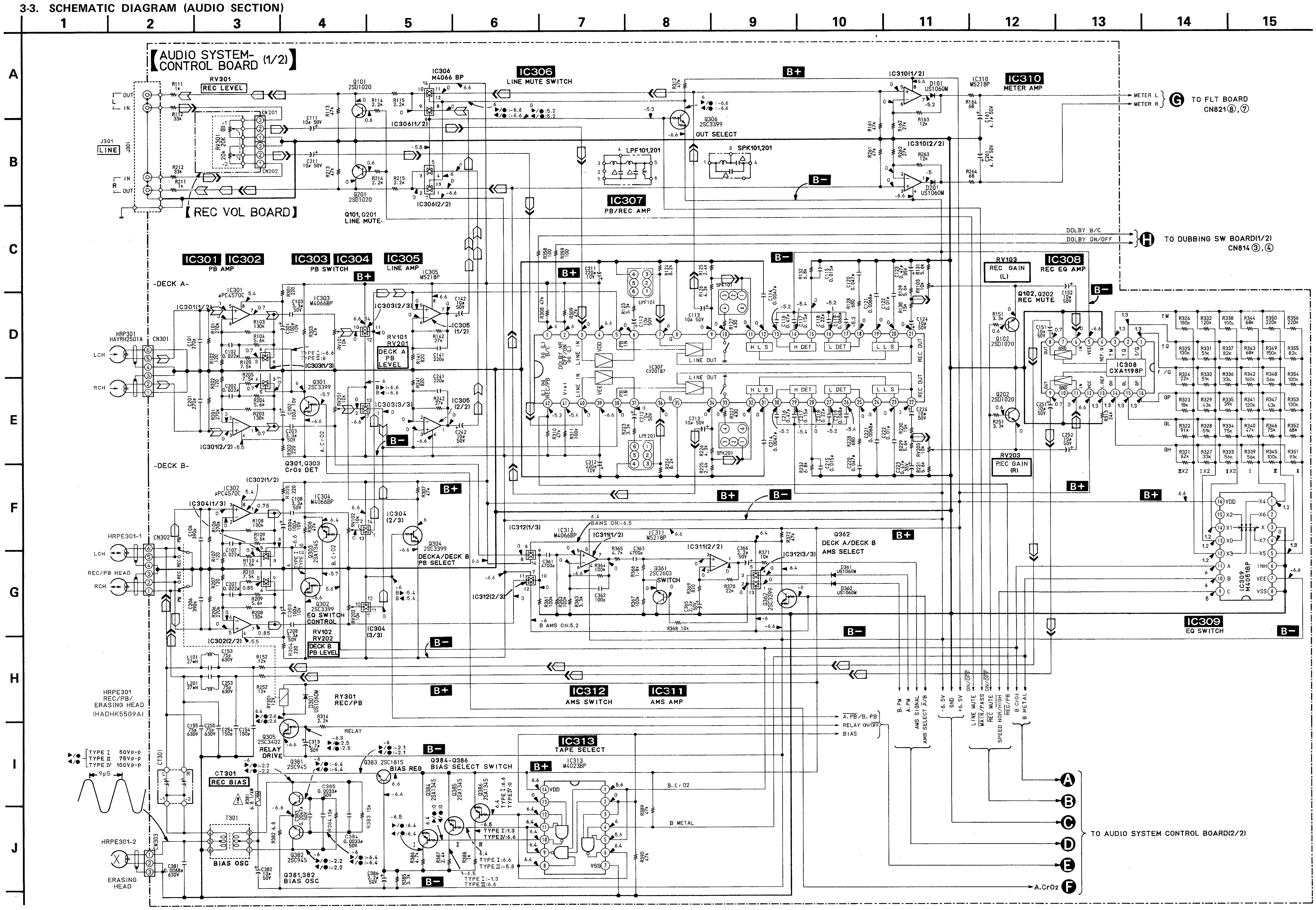
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^{1}/_{4}$W or less unless otherwise specified.
- △ : internal component.
- ⏦ : fusible resistor.
- **B+** : B+ Line
- **B–** : B– Line
- ▭ : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark: STOP
  < >: NORMAL Speed
  ≪ ≫: HIGH Speed
- ▶ : FWD ◀ : REV
  ▶▶ : FF ◀◀ : REW ● : REC
  A: DECK A B: DECK B
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

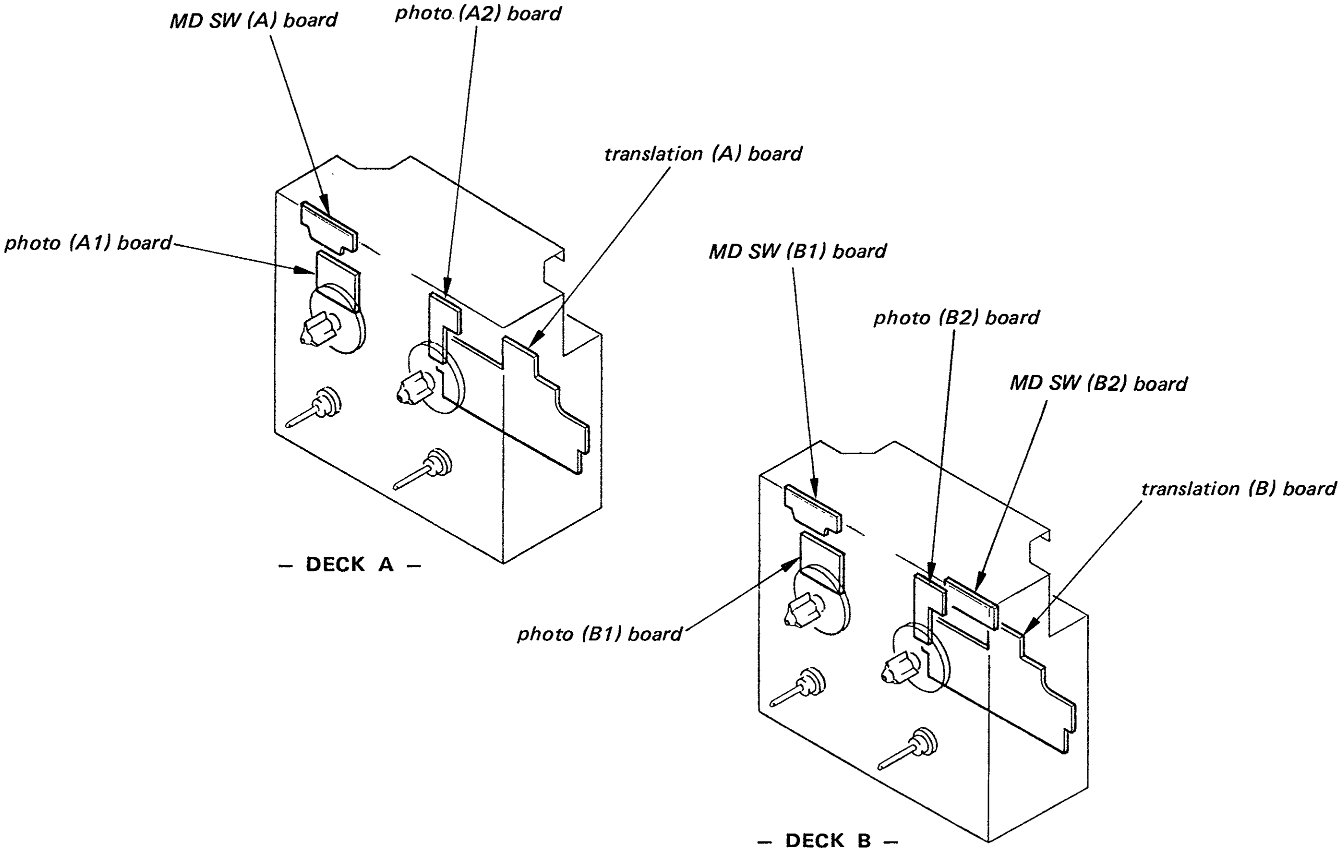
- Switch

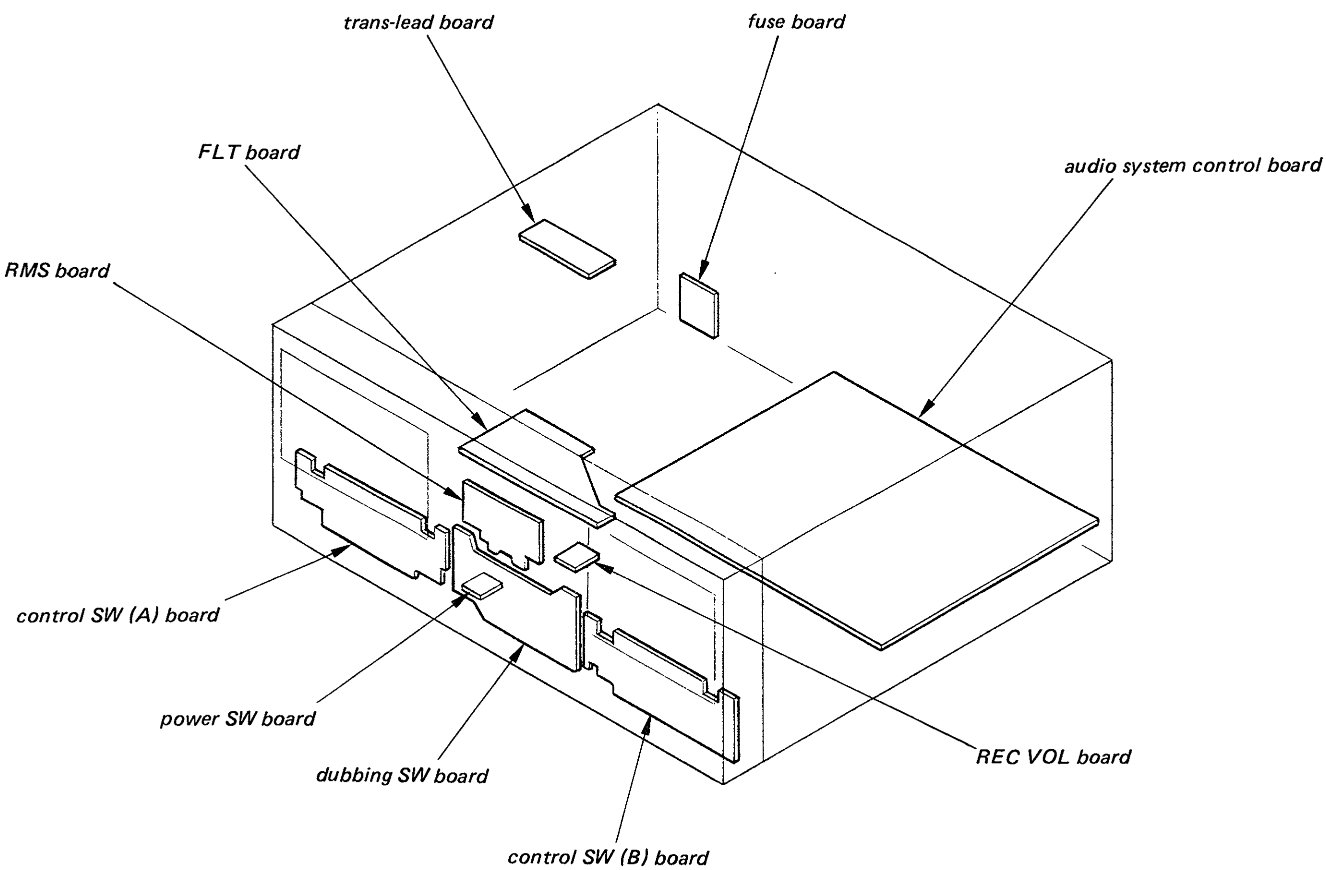
Ref. No.	Switch	Position
S919	TIMER	OFF
S920	DIRECTION	⟲
S921	DOLBY NR	B
S932	POWER	STAND BY
S901–918 S922–931	KEY BOARD SWITCH	OFF

3-3. SCHEMATIC DIAGRAM (AUDIO SECTION)



3-4. CIRCUIT BOARDS LOCATION





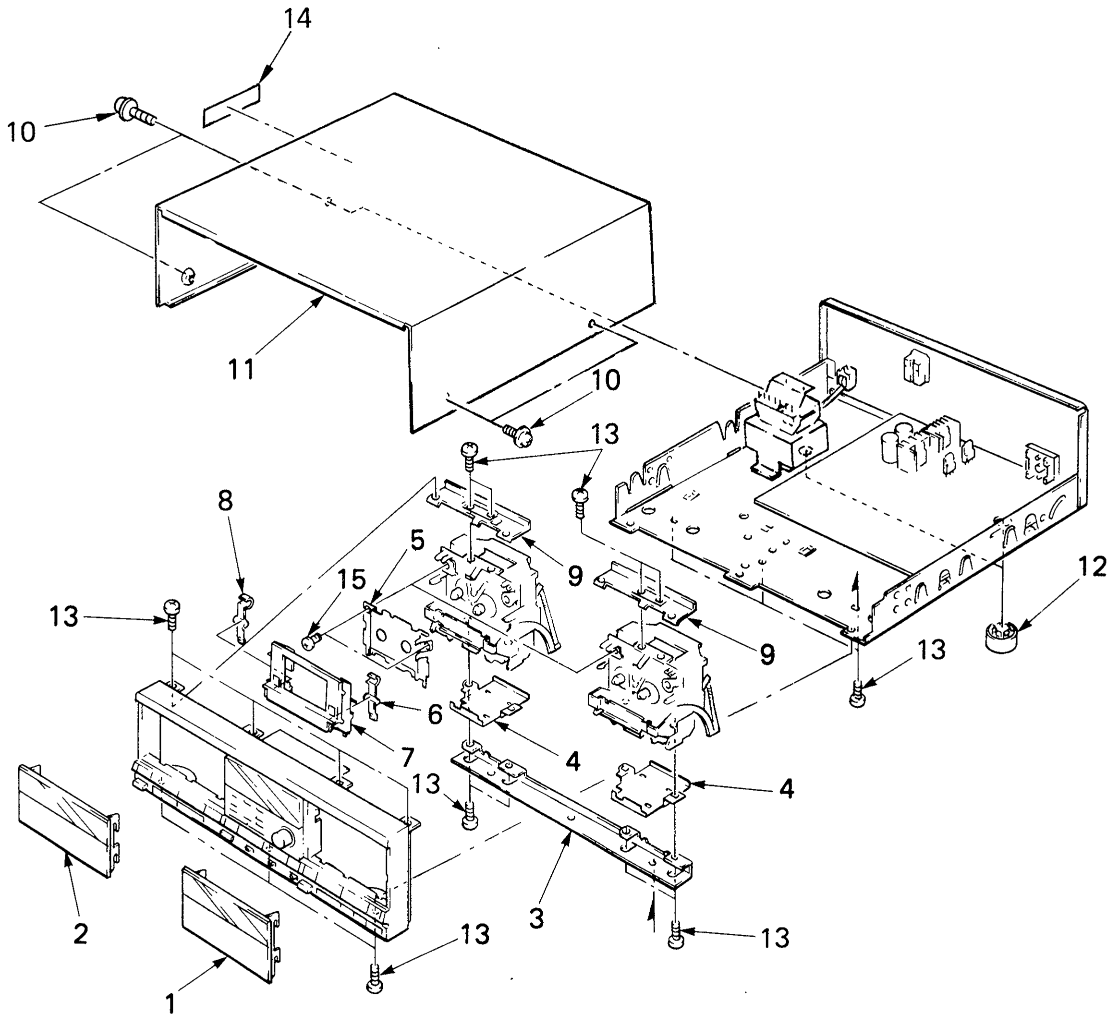
SECTION 4
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) ... KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts Color

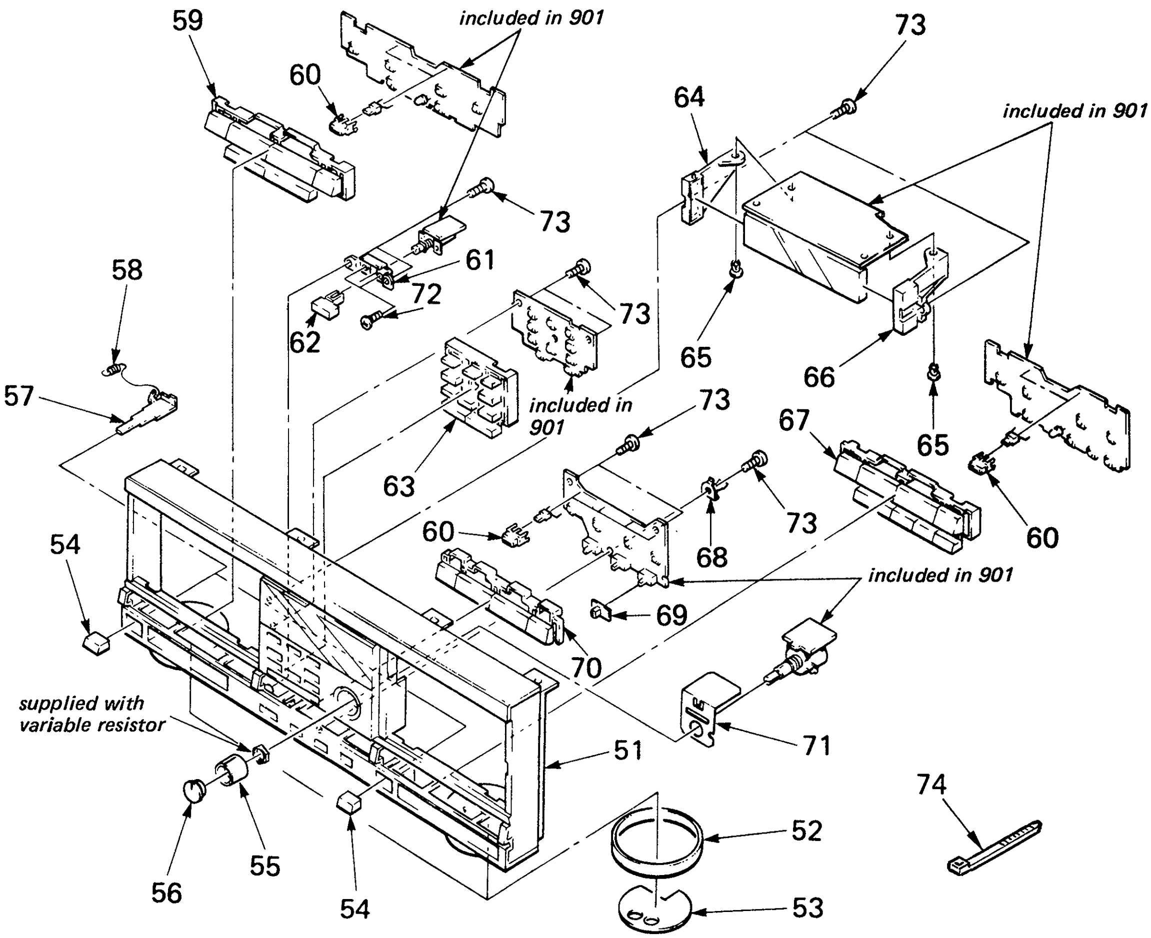
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

(1)



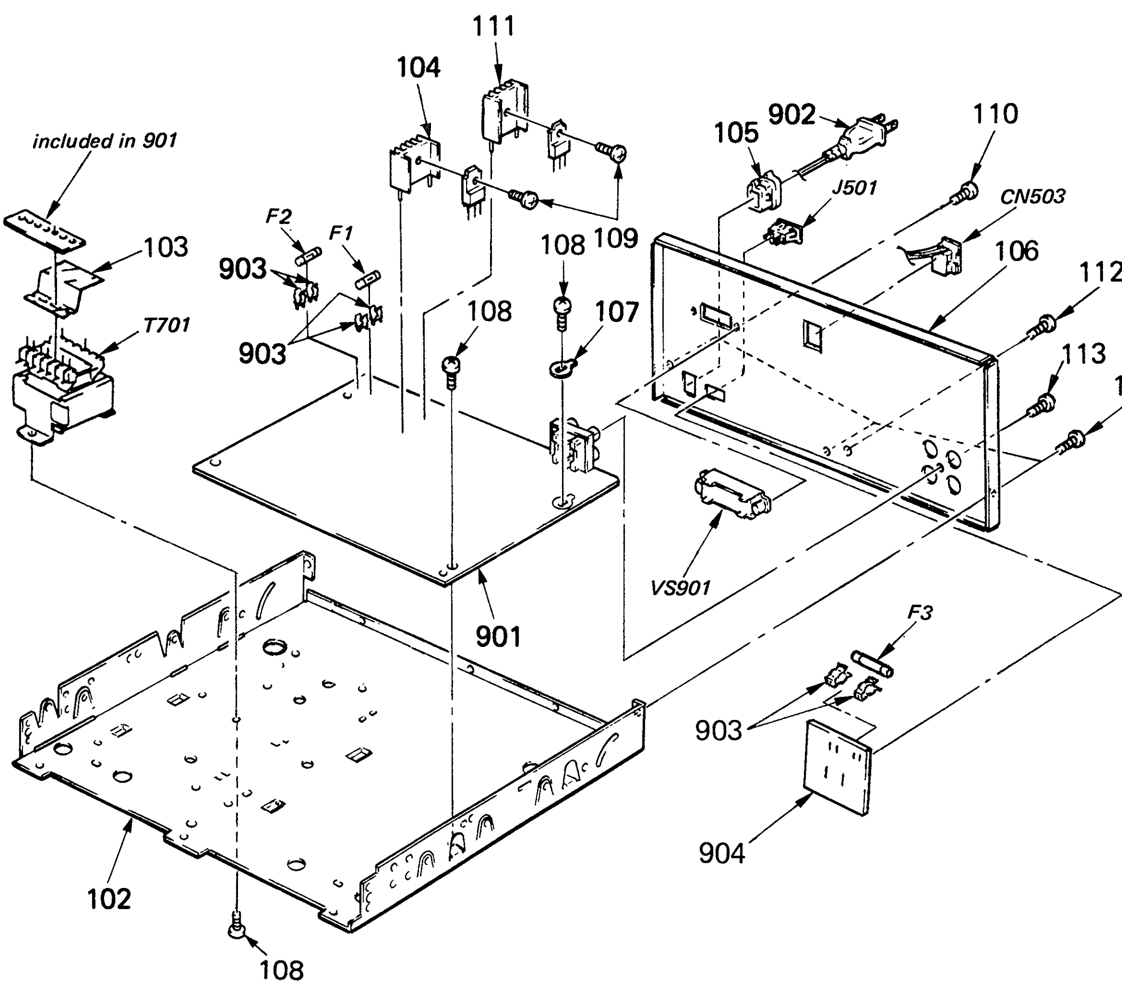
No.	Part No.	Description	Remarks
1	3-343-619-51	LID, CASSETTE	
2	3-343-619-01	LID, CASSETTE	
3	*3-343-614-01	BRACKET (MD)	
4	*3-343-627-01	PLATE, SHIELD, HEAD	
5	*3-332-547-01	PLATE, ORNAMENTAL	
6	3-307-372-00	SPRING (RIGHT)	
7	X-3332-448-1	HOLDER ASSY, CASSETTE	
8	3-307-371-00	SPRING (LEFT)	
9	*3-343-606-01	REINFORCEMENT	
10	4-886-821-01	SCREW, M3 CASE	
11	4-919-379-01	CASE	
12	X-4921-901-1	FOOT ASSY	
13	7-682-147-01	SCREW +BVTT 3X6 (S)	
14	3-703-079-21	(UK)...LABEL, CAUTION	
15	7-621-772-00	SCREW +B 2X3	

(2)



No.	Part No.	Description	Remarks
51	X-3343-623-1	PANEL ASSY, FRONT	
52	4-921-918-11	PLATE, ORNAMENTAL	
53	3-343-605-01	FELT	
54	3-323-410-31	BUTTON, EJECT	
55	3-343-610-01	KNOB (REC VOL, LEFT)	
56	3-343-609-01	KNOB (REC VOL, RIGHT)	
57	*3-343-613-01	SLIDER	
58	3-307-374-00	SPRING, TENSION	
59	X-3343-602-1	BUTTON (A) ASSY	
60	*3-337-108-01	HOLDER, LED	
61	*3-343-623-01	BRACKET (POWER SW)	
62	3-343-622-01	BUTTON (POWER SW)	
63	3-343-615-01	BUTTON (RMS)	
64	*3-343-608-01	HOLDER (LEFT), FL TUBE	
65	4-812-134-00	RIVET NYLON, 3.5	
66	*3-343-607-01	HOLDER (RIGHT), FL TUBE	
67	X-3343-601-1	BUTTON (B) ASSY	
68	3-343-626-01	SPRING	
69	3-343-612-01	KNOB (SLIDE)	
70	3-343-616-01	BUTTON (DUBBING)	
71	*3-343-611-01	PLATE, SHIELD, VOL	
72	7-621-772-10	SCREW +B 2X4	
73	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
74	*3-337-402-01	BAND, BINDING	

(3)



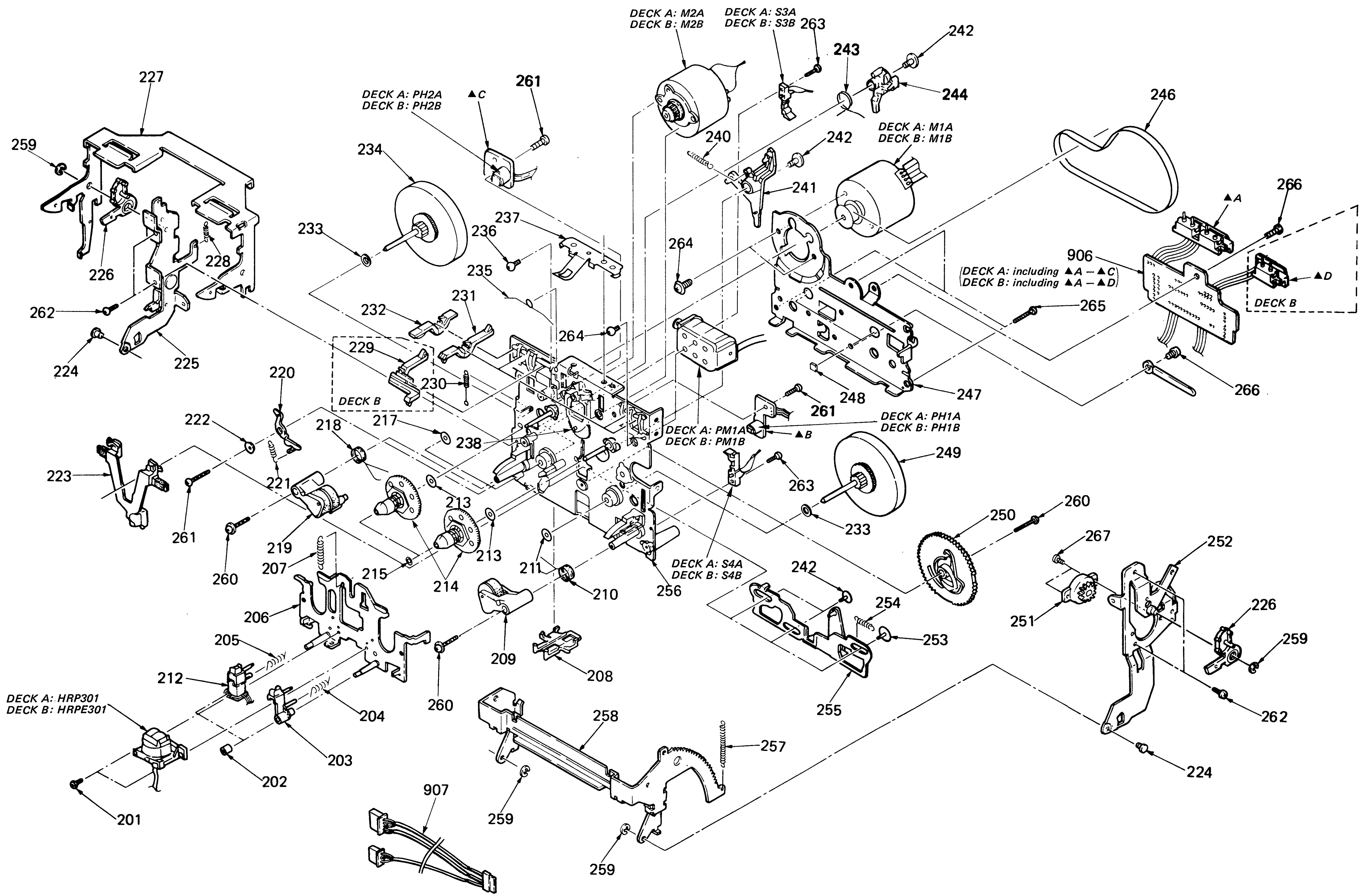
No.	Part No.	Description	Remarks
102	*4-921-903-61	CHASSIS	
103	*3-337-136-01	COVER, TRANSFORMER SAFETY	
104	*4-363-146-41	HEAT SINK, V.OUT	
105	*3-703-244-02	(AEP,UK,Saudi Arabia) .....BUSHING (2104), CORD	
	3-703-571-00	(E)........BUSHING (S) (4516), CORD	
106	*3-343-664-03	(AEP)............PANEL, BACK	
	*3-343-664-13	(UK).............PANEL, BACK	
	*3-343-664-21	(E)..............PANEL, BACK	
	*3-343-664-43	(Saudi Arabia)...PANEL, BACK	
108	7-682-147-01	SCREW +BVTT 3X6 (S)	
109	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
110	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
111	*4-363-146-81	HEAT SINK, V.OUT	
112	7-685-872-09	SCREW +BVTT 3X8 (S)	
113	7-621-849-00	SCREW, TAPPING	
901	*A-2056-422-A	MOUNTED PCB, SYSTEM CONTROL	

No.	Part No.	Description	Remarks
902	⚠.1-551-188-XX	(E)........CORD, POWER	
	⚠.1-556-562-11	(UK).......CORD, POWER	
	⚠.1-558-944-11	(AEP).........CORD, POWER	
	⚠.1-555-795-00	(Saudi Arabia)...CORD, POWER, EULO PLUG	
903	1-533-162-00	HOLDER, FUSE	
904	*1-626-652-11	(AEP)...PC BOARD, POWER	
CN503	*1-559-135-21	CORD (WITH CONNECTOR)(CONTROL S)	
F1	⚠.1-532-259-00	FUSE, TIME-LAG (1.25A)	
F2	⚠.1-532-259-00	FUSE, TIME-LAG (1.25A)	
F3	⚠.1-532-078-11	(AEP)...FUSE, TIME-LAG (1A)	
J501	⚠.1-526-751-11	(UK)..................OUTLET, AC	
J501	⚠.1-526-794-11	(AEP,Saukdi Arabia)...OUTLET, AC	
J501	⚠.1-526-882-00	(E)...................OUTLET, AC	
T701	⚠.1-449-364-11	(AEP,UK)...........TRANSFORMER, POWER	
T701	⚠.1-449-365-11	(E,Saudi Arabia)...TRANSFORMER, POWER	
VS901	⚠ 1-570-307-11	(E,Saudi Arabia) ...SWITCH, VOLTAGE SELECTOR	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

(4) MECHANISM SECTION
(DECK A: TCM-CMAY A-5
DECK B: TCM-CMAY B-17)

No.	Part No.	Description	Remarks
201	3-391-109-01	SCREW, WASHER	
202	3-391-110-01	NUT, ADJUSTMENT	
203	3-391-111-01	GUIDE, TAPE	
204	3-391-112-01	SPRING (RIGHT)	
205	3-391-113-01	SPRING (LEFT)	
206	*X-3391-154-1	HEAD ASSY, PLATE	
207	3-391-114-01	SPRING	
208	3-391-137-01	HOLDER, REED	
209	X-3391-104-1	PINCH ROLLER ASSY	
210	3-391-115-01	SPRING (RIGHT)	
211	3-391-119-01	SEAL, WASHER OIL	
212	3-391-156-01	HOLDER, SENSOR	
213	3-701-437-11	WASHER, 2.0 POLYETHYLENE	
214	X-3391-107-1	(DECK A)...REEL ASSY, T.U	
	X-3391-142-1	(DECK B)...REEL ASSY, T	
215	3-701-436-11	WASHER, 1.6 POLYETHYLENE	
217	3-391-117-01	SEAL, WASHER OIL	
218	3-391-116-01	SPRING (LEFT)	
219	X-3391-105-1	PINCH ROLLER ASSY	
220	3-391-121-01	ARM, EJECT SAFETY	
221	3-391-122-01	SPRING (A)	
222	3-391-120-01	CALLOR	
223	X-3391-108-1	BRAKE ASSY	
224	3-391-183-01	SHAFT (B), HOLDER FULCRUM	
225	*X-3391-152-1	ARM ASSY, EJECT	
226	3-391-185-01	LEVER, STOP	
227	*3-391-180-01	ARM, EJECT	
228	3-391-181-01	SP, LEVER RETURN	
229	3-392-703-01	(DECK B)...LEVER, METAL DETECTION	
230	3-391-139-01	SPRING	
231	*3-391-155-01	(DECK A)...LEVER, CHROME DETECTION	
	3-392-702-01	(DECK B)...LEVER, REC/CHROME DETECTION	
232	3-391-196-01	LEVER, HALF DETECTION	
233	3-701-438-11	WASHER, 2.5	
234	X-3391-125-1	ASSY F/W	
235	3-391-124-01	SPRING	
236	7-628-254-10	SCREW +PS 2.6X6	
237	3-391-177-01	SPRING	
238	X-3391-111-1	IDLER ASSY	
240	3-391-133-01	SPRING	
241	X-3391-146-1	ARM ASSY, PLAY	
242	3-391-126-01	CAP	
243	3-391-199-01	SP	
244	*3-392-701-01	ARM, DIRECTION	
246	3-391-134-01	BELT, MAIN	
247	*3-391-130-01	BRACKET (B), F/W	
248	3-391-129-01	SPACER	
249	X-3391-149-1	ASSY F/W	
250	3-391-197-01	GEAR (I), CAM	
251	X-3391-151-1	DAMPER ASSY	
252	*X-3391-150-1	BKT ASSY, DAMPER	
253	3-391-143-01	CAP	
254	3-391-127-01	SPRING	
255	X-3391-112-1	PLATE ASSY, SLIDE	
256	X-3391-110-1	CHASSIS ASSY	
257	3-391-184-01	SPRING, EJECT	
258	*3-391-182-01	HOLDER, CASSETTE	
259	7-624-105-04	STOP RING 2.3, TYPE -E	
260	7-685-107-19	SCREW +P 2X12 TYPE2 SLIT	
261	7-685-105-19	SCREW +P 2X8 TYPE2 SLIT	
262	7-621-773-86	SCREW +PTT 2.6X4 (S)	
263	7-685-104-19	SCREW +P 2X6 TYPE2 SLIT	
264	7-628-253-90	SCREW +PS 2.6X4	
265	7-685-131-19	SCREW +P 2.6X4 TYPE2 NON-SLIT	
266	7-682-546-04	SCREW +PTT 3X5 (S)	
267	7-621-255-15	SCREW +PTT 2X3 (S)	
906	*3-391-198-01	(DECK A)...PC BOARD, TRANSLATION (A)	
	*3-392-704-01	(DECK B)...PC BOARD, TRANSLATION (B)	
907	*3-392-705-01	(DECK B)...CONNECTOR, WIRE	
HRPE301	X-3391-157-1	(DECK B)...HEAD ASSY, ROTARY (REC/PB/ERASE)(HADKH5509A)	
HRP301	X-3391-102-1	(DECK A)...HEAD ASSY, ROTARY (PB) (HAYRH250A)	
M1A	X-3391-155-1	MOTOR ASSY (CAPSTAN)	
M1B	X-3391-155-1	MOTOR ASSY (CAPSTAN)	
M2A	X-3391-156-1	MOTOR ASSY (REEL)	
M2B	X-3391-156-1	MOTOR ASSY (REEL)	
PH1A	1-807-509-11	PHOTO SENSOR	
PH1B	1-807-509-11	PHOTO SENSOR	
PH2A	1-807-509-11	PHOTO SENSOR	
PH2B	1-807-509-11	PHOTO SENSOR	
PM1A	1-454-440-11	SOLENOID, PLUNGER	
PM1B	1-454-440-11	SOLENOID, PLUNGER	
S3A	1-570-721-11	SWITCH, LEAF (HEAD UP/DOWN)	
S3B	1-570-721-11	SWITCH, LEAF (HEAD UP/DOWN)	
S4A	1-570-721-11	SWITCH, LEAF (DIRECTION)	
S4B	1-570-721-11	SWITCH, LEAF (DIRECTION)	


DECK A: M2A
DECK B: M2B
DECK A: S3A
DECK B: S3B
263
243
242
244
227
261
DECK A: PH2A
DECK B: PH2B
▲C
259
234
240
242
DECK A: M1A
DECK B: M1B
246
241
266
▲A
226
228
233
236
237
264
906
(DECK A: including ▲A – ▲C)
(DECK B: including ▲A – ▲D)
▲D
DECK B
235
262
232
231
265
224
225
229
264
230
DECK B
248
247
266
261
220
222
217
218
238
DECK A: PM1A
DECK B: PM1B
DECK A: PH1A
DECK B: PH1B
▲B
249
223
221
213
263
261
219
233
250
260
260
213
214
207
215
211
210
DECK A: S4A
DECK B: S4B
256
242
267
252
254
226
206
209
253
251
259
205
260
208
255
212
204
DECK A: HRP301
DECK B: HRPE301
203
258
262
257
224
202
201
907
259
259

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
901	*A-2056-422-A	MOUNTED PCB, SYSTEM CONTROL			
902	⚠1-551-188-XX	(E).....CORD, POWER			
	⚠1-556-562-11	(UK)....CORD, POWER			
	⚠1-558-944-11	(AEP).........CORD, POWER			
	⚠1-555-795-00	(Saudi Arabia)...CORD, POWER, EULO PLUG			
903	1-533-162-00	HOLDER, FUSE			
904	*1-626-652-11	(AEP)...PC BOARD, POWER			
906	*3-391-198-01	(DECK A)...PC BOARD, TRANSLATION (A)			
	*3-392-704-01	(DECK B)...PC BOARD, TRANSLATION (B)			
907	*3-392-705-01	(DECK B)...CONNECTOR, WIRE			
C101	1-162-287-31	CERAMIC	270PF	10%	50V
C102	1-136-157-00	FILM	0.022MF	5%	50V
C103	1-124-273-00	ELECT	3.3MF	20%	50V
C106	1-162-289-31	CERAMIC	390PF	10%	50V
C107	1-136-157-00	FILM	0.022MF	5%	50V
C108	1-124-273-00	ELECT	3.3MF	20%	50V
C111	1-123-875-11	ELECT	10MF	20%	50V
C112	1-123-875-11	ELECT	10MF	20%	50V
C113	1-123-875-11	ELECT	10MF	20%	50V
C114	1-130-479-00	MYLAR	0.0047MF	5%	50V
C115	1-136-155-00	FILM	0.015MF	5%	50V
C116	1-136-173-00	FILM	0.47MF	5%	50V
C117	1-136-167-00	FILM	0.15MF	5%	50V
C118	1-136-169-00	FILM	0.22MF	5%	50V
C119	1-136-163-00	FILM	0.068MF	5%	50V
C120	1-136-161-00	FILM	0.047MF	5%	50V
C121	1-130-481-00	MYLAR	0.0068MF	5%	50V
C122	1-136-153-00	FILM	0.01MF	5%	50V
C123	1-131-345-00	TANTALUM	0.47MF	10%	35V
C124	1-123-875-11	ELECT	10MF	20%	50V
C141	1-162-286-31	CERAMIC	220PF	10%	50V
C142	1-123-875-11	ELECT	10MF	20%	50V
C151	1-123-875-11	ELECT	10MF	20%	50V
C152	1-123-875-11	ELECT	10MF	20%	50V
C153	1-136-273-91	FILM	75PF	5%	630V
C154	1-162-284-31	CERAMIC	150PF	10%	50V
C155	1-136-273-91	FILM	75PF	5%	630V
C161	1-124-927-11	ELECT	4.7MF	20%	50V
C201	1-162-287-31	CERAMIC	270PF	10%	50V
C202	1-136-157-00	FILM	0.022MF	5%	50V
C203	1-124-273-00	ELECT	3.3MF	20%	50V
C206	1-162-289-31	CERAMIC	390PF	10%	50V
C207	1-136-157-00	FILM	0.022MF	5%	50V

Ref.No.	Part No.	Description			
C208	1-124-273-00	ELECT	3.3MF	20%	50V
C211	1-123-875-11	ELECT	10MF	20%	50V
C212	1-123-875-11	ELECT	10MF	20%	50V
C213	1-123-875-11	ELECT	10MF	20%	50V
C214	1-130-479-00	MYLAR	0.0047MF	5%	50V
C215	1-136-155-00	FILM	0.015MF	5%	50V
C216	1-136-173-00	FILM	0.47MF	5%	50V
C217	1-136-167-00	FILM	0.15MF	5%	50V
C218	1-136-169-00	FILM	0.22MF	5%	50V
C219	1-136-163-00	FILM	0.068MF	5%	50V
C220	1-136-161-00	FILM	0.047MF	5%	50V
C221	1-130-481-00	MYLAR	0.0068MF	5%	50V
C222	1-136-153-00	FILM	0.01MF	5%	50V
C223	1-131-345-00	TANTALUM	0.47MF	10%	35V
C224	1-123-875-11	ELECT	10MF	20%	50V
C241	1-162-286-31	CERAMIC	220PF	10%	50V
C242	1-123-875-11	ELECT	10MF	20%	50V
C251	1-123-875-11	ELECT	10MF	20%	50V
C252	1-123-875-11	ELECT	10MF	20%	50V
C253	1-136-273-91	FILM	75PF	5%	630V
C254	1-162-284-31	CERAMIC	150PF	10%	50V
C255	1-136-273-91	FILM	75PF	5%	630V
C261	1-124-927-11	ELECT	4.7MF	20%	50V
C301	1-124-443-00	ELECT	100MF	20%	10V
C302	1-124-443-00	ELECT	100MF	20%	10V
C303	1-124-443-00	ELECT	100MF	20%	10V
C304	1-124-443-00	ELECT	100MF	20%	10V
C311	1-126-176-11	ELECT	220MF	20%	10V
C312	1-126-176-11	ELECT	220MF	20%	10V
C313	1-124-927-11	ELECT	4.7MF	20%	50V
C361	1-161-377-00	CERAMIC	0.0047MF	20%	16V
C362	1-162-282-31	CERAMIC	100PF	10%	50V
C363	1-161-377-00	CERAMIC	0.0047MF	20%	16V
C365	1-124-925-11	ELECT	2.2MF	20%	50V
C366	1-124-925-11	ELECT	2.2MF	20%	50V
C381	1-136-561-11	FILM	0.0068MF	5%	630V
C382	1-123-875-11	ELECT	10MF	20%	50V
C383	1-130-479-00	MYLAR	0.0047MF	5%	50V
C384	1-130-477-00	MYLAR	0.0033MF	5%	50V
C385	1-130-477-00	MYLAR	0.0033MF	5%	50V
C386	1-124-925-11	ELECT	2.2MF	20%	50V
C501	1-124-443-00	ELECT	100MF	20%	10V
C502	1-123-875-11	ELECT	10MF	20%	50V
C503	1-124-925-11	ELECT	2.2MF	20%	50V
C504	1-124-925-11	ELECT	2.2MF	20%	50V

REVISED

Ref.No.	Part No.	Description			
C505	1-124-925-11	ELECT	2.2MF	20%	50V
C506	1-124-927-11	ELECT	4.7MF	20%	50V
C507	1-162-284-31	CERAMIC	150PF	10%	50V
C508	1-162-284-31	CERAMIC	150PF	10%	50V
C509	1-162-294-31	CERAMIC	0.001MF	10%	50V
C513	1-124-443-00	ELECT	100MF	20%	10V
C514	1-161-494-00	CERAMIC	0.022MF		25V
C515	1-161-494-00	CERAMIC	0.022MF		25V
C516	1-161-494-00	CERAMIC	0.022MF		25V
C601	1-124-446-11	ELECT	47MF	20%	10V
C602	1-124-446-11	ELECT	47MF	20%	10V
C603	1-124-446-11	ELECT	47MF	20%	10V
C604	1-124-446-11	ELECT	47MF	20%	10V
C701	1-124-887-00	ELECT	3300MF	20%	16V
C702	1-124-887-00	ELECT	3300MF	20%	16V
C704	1-124-443-00	ELECT	100MF	20%	10V
C705	1-124-443-00	ELECT	100MF	20%	10V
C706	1-124-556-11	ELECT	2200MF	20%	16V
C707	1-124-556-11	ELECT	2200MF	20%	16V
C708	1-124-443-00	ELECT	100MF	20%	10V
C709	1-124-443-00	ELECT	100MF	20%	10V
C710	1-124-443-00	ELECT	100MF	20%	10V
C711	1-124-912-11	ELECT	330MF	20%	50V
C712	1-123-875-11	ELECT	10MF	20%	50V
C713	1-124-477-11	ELECT	47MF	20%	16V
C715	1-162-294-31	CERAMIC	0.001MF	10%	50V
C716	1-162-294-31	CERAMIC	0.001MF	10%	50V
C801	1-124-443-00	ELECT	100MF	20%	10V
C802	1-161-494-00	CERAMIC	0.022MF		25V
CN201	*1-564-705-21	PIN, CONNECTOR (SMALL TYPE) 3P			
CN202	*1-564-705-31	PIN, CONNECTOR (SMALL TYPE) 3P			
CN301	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN302	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN303	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN503	*1-559-135-21	CORD (WITH CONNECTOR)(CONTROL S)			
CN811	*1-564-342-81	PIN, CONNECTOR 8P			
CN812	*1-564-342-51	PIN, CONNECTOR 8P			
CN813	*1-564-341-51	PIN, CONNECTOR 7P			
CN814	*1-564-338-51	PIN, CONNECTOR 4P			
CN821	*1-564-342-51	PIN, CONNECTOR 8P			
CN822	*1-564-666-11	PIN, CONNECTOR 10P			
CN823	*1-564-342-61	PIN, CONNECTOR 8P			
CN824	*1-564-337-51	PIN, CONNECTOR 3P			
CN841	*1-564-339-51	PIN, CONNECTOR 5P			
CT301	1-141-225-00	CAP, TUNING, TRIMAR			
D101	8-719-000-26	DIODE US1060M			
D201	8-719-000-26	DIODE US1060M			
D301	8-719-000-26	DIODE US1060M			
D361	8-719-000-26	DIODE US1060M			
D362	8-719-000-26	DIODE US1060M			
D501	8-719-000-26	DIODE US1060M			
D502	8-719-000-26	DIODE US1060M			
D503	8-719-000-26	DIODE US1060M			
D504	8-719-000-26	DIODE US1060M			
D506	8-719-000-26	DIODE US1060M			
D507	8-719-000-26	DIODE US1060M			
D508	8-719-000-26	DIODE US1060M			

Ref.No.	Part No.	Description
D509	8-719-000-26	DIODE US1060M
D601	8-719-000-26	DIODE US1060M
D602	8-719-000-26	DIODE US1060M
D603	8-719-000-26	DIODE US1060M
D604	8-719-000-26	DIODE US1060M
D605	8-719-200-77	DIODE 10E2N
D606	8-719-000-26	DIODE US1060M
D607	**8-719-933-54**	**DIODE HZS9A2L**
D608	8-719-200-77	DIODE 10E2N
D609	8-719-000-26	DIODE US1060M
D701	8-719-200-77	DIODE 10E2N
D702	8-719-200-77	DIODE 10E2N
D703	8-719-200-77	DIODE 10E2N
D704	8-719-200-77	DIODE 10E2N
D705	8-719-200-77	DIODE 10E2N
D706	8-719-200-77	DIODE 10E2N
D707	8-719-200-77	DIODE 10E2N
D708	8-719-200-77	DIODE 10E2N
D709	8-719-000-72	DIODE UZL-6H3
D710	8-719-000-48	DIODE UZL-6L1
D711	8-719-200-77	DIODE 10E2N
D712	8-719-000-26	DIODE US1060M
D715	8-719-000-87	DIODE UZL-7M2
D801	8-719-000-26	DIODE US1060M
D802	8-719-000-26	DIODE US1060M
D901	8-719-945-12	DIODE GL9ND24
D902	8-719-945-12	DIODE GL9ND24
D903	8-719-812-42	DIODE TLY124
D904	8-719-945-12	DIODE GL9ND24
D905	8-719-945-12	DIODE GL9ND24
D906	8-719-812-42	DIODE TLY124
D907	8-719-948-81	DIODE GL8NG34T
D908	8-719-948-79	DIODE GL8HD34T
D909	8-719-948-79	DIODE GL8HD34T
D910	8-719-948-80	DIODE GL8HY34T
F1	⚠1-532-259-00	FUSE, TIME-LAG (1.25A)
F2	⚠1-532-259-00	FUSE, TIME-LAG (1.25A)
F3	⚠1-532-078-11	(AEP)...FUSE, TIME-LAG (1A)
FLT801	1-519-445-11	INDICATOR TUBE, FLUORESCENT
HRPE301	X-3391-157-1	(DECK B)...HEAD ASSY, ROTARY (REC/PB/ERASE)(HADKH5509A)
HRP301	X-3391-102-1	(DECK A)...HEAD ASSY, ROTARY (PB) (HAYRH250A)
IC301	8-759-111-44	IC UPC4570C-1
IC302	8-759-111-44	IC UPC4570C-1
IC303	8-759-601-43	IC M4066BP
IC304	8-759-601-43	IC M4066BP
IC305	8-759-601-02	IC M5218P
IC306	8-759-601-43	IC M4066BP
IC307	8-752-018-70	IC CX20187
IC308	8-752-032-60	IC CXA1198P
IC309	8-759-624-51	IC TC4051BP
IC310	8-759-601-02	IC M5218P
IC311	8-759-601-02	IC M5218P
IC312	8-759-601-43	IC M4066BP

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
IC313	8-759-624-23	IC TC4023BP
IC501	8-759-939-76	IC MB88515B-233K
IC502	8-759-604-07	IC M50761-423P
IC503	8-759-624-52	IC TC4052BP
IC504	8-759-624-52	IC TC4052BP
IC801	8-759-630-41	IC M50940-400SK
J301	1-565-258-11	JACK, PIN 4P (LINE)
J501	⚠.1-526-751-11	(UK)........OUTLET, AC
J501	⚠.1-526-794-11	(AEP,Saukdi Arabia)...OUTLET, AC
J501	⚠.1-526-882-00	(E).........OUTLET, AC
L101	1-410-780-11	INDUCTOR 27MMH
L201	1-410-780-11	INDUCTOR 27MMH
LPF101	1-236-087-11	FILTER, LOW PASS
LPF201	1-236-087-11	FILTER, LOW PASS
M1A	X-3391-155-1	MOTOR ASSY (CAPSTAN)
M1B	X-3391-155-1	MOTOR ASSY (CAPSTAN)
M2A	X-3391-156-1	MOTOR ASSY (REEL)
M2B	X-3391-156-1	MOTOR ASSY (REEL)
PH1A	1-807-509-11	PHOTO SENSOR
PH1B	1-807-509-11	PHOTO SENSOR
PH2A	1-807-509-11	PHOTO SENSOR
PH2B	1-807-509-11	PHOTO SENSOR
PM1A	1-454-440-11	SOLENOID, PLUNGER
PM1B	1-454-440-11	SOLENOID, PLUNGER
Q101	8-729-102-03	TRANSISTOR 2SD1020
Q102	8-729-102-03	TRANSISTOR 2SD1020
Q201	8-729-102-03	TRANSISTOR 2SD1020
Q202	8-729-102-03	TRANSISTOR 2SD1020
Q301	8-729-806-38	TRANSISTOR 2SC3399
Q302	8-729-806-38	TRANSISTOR 2SC3399
Q303	8-729-806-20	TRANSISTOR 2SA1345
Q304	8-729-806-38	TRANSISTOR 2SC3399
Q305	8-729-806-28	TRANSISTOR 2SC3402
Q306	8-729-806-38	TRANSISTOR 2SC3399
Q361	8-729-600-27	TRANSISTOR 2SC634SP
Q362	8-729-806-38	TRANSISTOR 2SC3399
Q381	8-729-194-57	TRANSISTOR 2SC945-P
Q382	8-729-109-57	TRANSISTOR 2SC945-P
Q383	8-729-281-53	TRANSISTOR 2SC1815GR
Q384	8-729-806-20	TRANSISTOR 2SA1345
Q385	8-729-806-20	TRANSISTOR 2SA1345
Q386	8-729-806-20	TRANSISTOR 2SA1345
Q501	8-729-600-27	TRANSISTOR 2SC634SP
Q502	8-729-600-27	TRANSISTOR 2SC634SP
Q503	8-729-806-38	TRANSISTOR 2SC3399
Q504	8-729-806-20	TRANSISTOR 2SA1345
Q505	8-729-600-60	TRANSISTOR 2SA1115P
Q506	8-729-600-60	TRANSISTOR 2SA1115P
Q507	8-729-806-20	TRANSISTOR 2SA1345
Q508	8-729-600-60	TRANSISTOR 2SA1115P
Q510	8-729-806-38	TRANSISTOR 2SC3399
Q511	8-729-806-38	TRANSISTOR 2SC3399
Q512	8-729-806-20	TRANSISTOR 2SA1345
Q513	8-729-600-60	TRANSISTOR 2SA1115P

Ref.No.	Part No.	Description		
Q516	9-986-159-01	TRANSISTOR 2SA1348		
Q517	9-986-159-01	TRANSISTOR 2SA1348		
Q518	9-986-159-01	TRANSISTOR 2SA1348		
Q519	9-986-159-01	TRANSISTOR 2SA1348		
Q520	9-986-159-01	TRANSISTOR 2SA1348		
Q521	9-986-159-01	TRANSISTOR 2SA1348		
Q522	8-729-806-28	TRANSISTOR 2SC3402		
Q523	8-729-806-28	TRANSISTOR 2SC3402		
Q524	8-729-806-28	TRANSISTOR 2SC3402		
Q601	8-729-600-82	TRANSISTOR 2SA1282-F		
Q602	8-729-601-50	TRANSISTOR 2SC3242-E		
Q603	8-729-806-20	TRANSISTOR 2SA1345		
Q604	8-729-806-38	TRANSISTOR 2SC3399		
Q605	8-729-601-50	TRANSISTOR 2SC3242-E		
Q606	8-729-806-28	TRANSISTOR 2SC3402		
Q607	8-729-601-50	TRANSISTOR 2SC3242-E		
Q608	8-729-600-82	TRANSISTOR 2SA1282-F		
Q609	8-729-600-82	TRANSISTOR 2SA1282-F		
Q610	8-729-601-50	TRANSISTOR 2SC3242-E		
Q611	8-729-601-50	TRANSISTOR 2SC3242-E		
Q612	8-729-600-82	TRANSISTOR 2SA1282-F		
Q613	8-729-601-50	TRANSISTOR 2SC3242-E		
Q614	8-729-806-20	TRANSISTOR 2SA1345		
Q615	8-729-601-50	TRANSISTOR 2SC3242-E		
Q616	8-729-806-28	TRANSISTOR 2SC3402		
Q617	8-729-601-50	TRANSISTOR 2SC3242-E		
Q618	8-729-600-82	TRANSISTOR 2SA1282-F		
Q619	8-729-600-82	TRANSISTOR 2SA1282-F		
Q620	8-729-601-50	TRANSISTOR 2SC3242-E		
Q621	8-729-601-50	TRANSISTOR 2SC3242-E		
Q701	8-729-600-27	TRANSISTOR 2SC634SP		
Q702	8-729-209-15	TRANSISTOR 2SD2012		
Q703	8-729-600-60	TRANSISTOR 2SA1115P		
Q704	8-729-600-60	TRANSISTOR 2SA1115P		
Q705	8-729-209-15	TRANSISTOR 2SD2012		
Q706	8-729-224-62	TRANSISTOR 2SK246GR		
Q707	8-729-600-27	TRANSISTOR 2SC634SP		
Q708	8-729-600-27	TRANSISTOR 2SC634SP		
Q709	8-729-209-60	TRANSISTOR 2SB1375		
Q710	8-729-224-62	TRANSISTOR 2SK246GR		
Q711	8-729-600-60	TRANSISTOR 2SA1115P		
Q712	8-729-600-60	TRANSISTOR 2SA1115P		
Q713	8-729-209-15	TRANSISTOR 2SD2012		
Q714	8-729-600-60	TRANSISTOR 2SA1115P		
Q715	8-729-118-01	TRANSISTOR 2SB1116		
Q716	8-729-806-28	TRANSISTOR 2SC3402		
Q717	8-729-806-28	TRANSISTOR 2SC3402		
R1B	1-247-845-00	CARBON	3.9K	1/4W
R2B	1-247-855-00	CARBON	10K	1/4W
R3A	1-247-867-00	CARBON	33K	1/4W
R3B	1-247-867-00	CARBON	33K	1/4W
R4B	1-247-847-00	CARBON	4.7K	1/4W
R5A	1-247-847-00	CARBON	4.7K	1/4W
R5B	1-247-847-00	CARBON	4.7K	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			
R6A	1-247-847-00	CARBON	4.7K		1/4W
R6B	1-247-847-00	CARBON	4.7K		1/4W
R7A	1-247-855-00	CARBON	10K		1/4W
R7B	1-247-855-00	CARBON	10K		1/4W
R8A	1-247-863-00	CARBON	22K		1/4W
R8B	1-247-863-00	CARBON	22K		1/4W
R9A	1-247-815-00	CARBON	220		1/4W
R9B	1-247-815-00	CARBON	220		1/4W
R10A	1-247-815-00	CARBON	220		1/4W
R10B	1-247-815-00	CARBON	220		1/4W
R101	1-247-889-00	CARBON	270K	5%	1/4W
R102	1-249-406-11	CARBON	120	5%	1/4W
R103	1-247-882-11	CARBON	130K	5%	1/4W
R104	1-249-426-11	CARBON	5.6K	5%	1/4W
R105	1-247-852-11	CARBON	7.5K	5%	1/4W
R106	1-247-889-00	CARBON	270K	5%	1/4W
R107	1-249-406-11	CARBON	120	5%	1/4W
R108	1-247-882-11	CARBON	130K	5%	1/4W
R109	1-249-426-11	CARBON	5.6K	5%	1/4W
R110	1-247-852-11	CARBON	7.5K	5%	1/4W
R111	1-249-417-11	CARBON	1K	5%	1/4W
R112	1-249-435-11	CARBON	33K	5%	1/4W
R113	1-249-437-11	CARBON	47K	5%	1/4W
R114	1-249-421-11	CARBON	2.2K	5%	1/4W
R115	1-249-421-11	CARBON	2.2K	5%	1/4W
R123	1-249-423-11	CARBON	3.3K	5%	1/4W
R124	1-249-428-11	CARBON	8.2K	5%	1/4W
R125	1-247-840-00	CARBON	2.4K	5%	1/4W
R126	1-247-846-11	CARBON	4.3K	5%	1/4W
R127	1-247-822-11	CARBON	430	5%	1/4W
R128	1-249-415-11	CARBON	680	5%	1/4W
R129	1-249-426-11	CARBON	5.6K	5%	1/4W
R130	1-249-431-11	CARBON	15K	5%	1/4W
R131	1-249-426-11	CARBON	5.6K	5%	1/4W
R132	1-249-427-11	CARBON	6.8K	5%	1/4W
R141	1-249-416-11	CARBON	820	5%	1/4W
R142	1-249-434-11	CARBON	27K	5%	1/4W
R151	1-249-423-11	CARBON	3.3K	5%	1/4W
R152	1-249-430-11	CARBON	12K	5%	1/4W
R161	1-249-437-11	CARBON	47K	5%	1/4W
R162	1-249-434-11	CARBON	27K	5%	1/4W
R163	1-249-430-11	CARBON	12K	5%	1/4W
R164	1-249-403-11	CARBON	68	5%	1/4W
R201	1-247-889-00	CARBON	270K	5%	1/4W
R202	1-249-406-11	CARBON	120	5%	1/4W
R203	1-247-882-11	CARBON	130K	5%	1/4W
R204	1-249-426-11	CARBON	5.6K	5%	1/4W
R205	1-247-852-11	CARBON	7.5K	5%	1/4W
R206	1-247-889-00	CARBON	270K	5%	1/4W
R207	1-249-406-11	CARBON	120	5%	1/4W
R208	1-247-882-11	CARBON	130K	5%	1/4W
R209	1-249-426-11	CARBON	5.6K	5%	1/4W
R210	1-247-852-11	CARBON	7.5K	5%	1/4W
R211	1-249-417-11	CARBON	1K	5%	1/4W
R212	1-249-435-11	CARBON	33K	5%	1/4W

Ref.No.	Part No.	Description			
R213	1-249-437-11	CARBON	47K	5%	1/4W
R214	1-249-421-11	CARBON	2.2K	5%	1/4W
R215	1-249-421-11	CARBON	2.2K	5%	1/4W
R223	1-249-423-11	CARBON	3.3K	5%	1/4W
R224	1-249-428-11	CARBON	8.2K	5%	1/4W
R225	1-247-840-00	CARBON	2.4K	5%	1/4W
R226	1-247-846-11	CARBON	4.3K	5%	1/4W
R227	1-247-822-11	CARBON	430	5%	1/4W
R228	1-249-415-11	CARBON	680	5%	1/4W
R229	1-249-426-11	CARBON	5.6K	5%	1/4W
R230	1-249-431-11	CARBON	15K	5%	1/4W
R231	1-249-426-11	CARBON	5.6K	5%	1/4W
R232	1-249-427-11	CARBON	6.8K	5%	1/4W
R241	1-249-416-11	CARBON	820	5%	1/4W
R242	1-249-434-11	CARBON	27K	5%	1/4W
R251	1-249-423-11	CARBON	3.3K	5%	1/4W
R252	1-249-430-11	CARBON	12K	5%	1/4W
R261	1-249-437-11	CARBON	47K	5%	1/4W
R262	1-249-434-11	CARBON	27K	5%	1/4W
R263	1-249-430-11	CARBON	12K	5%	1/4W
R264	1-249-403-11	CARBON	68	5%	1/4W
R301	1-249-409-11	CARBON	220	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-437-11	CARBON	47K	5%	1/4W
R304	1-249-409-11	CARBON	220	5%	1/4W
R305	1-249-409-11	CARBON	220	5%	1/4W
R306	1-249-437-11	CARBON	47K	5%	1/4W
R307	1-249-437-11	CARBON	47K	5%	1/4W
R308	1-249-437-11	CARBON	47K	5%	1/4W
R309	1-249-437-11	CARBON	47K	5%	1/4W
R310	1-249-437-11	CARBON	47K	5%	1/4W
R311	1-215-469-00	METAL	100K	1%	1/6W
R312	1-249-437-11	CARBON	47K	5%	1/4W
R313	1-247-864-11	CARBON	24K	5%	1/4W
R314	1-249-421-11	CARBON	2.2K	5%	1/4W
R321	1-247-874-11	CARBON	62K	5%	1/4W
R322	1-247-878-00	CARBON	91K	5%	1/4W
R323	1-249-432-11	CARBON	18K	5%	1/4W
R324	1-249-433-11	CARBON	22K	5%	1/4W
R325	1-247-882-11	CARBON	130K	5%	1/4W
R326	1-247-885-00	CARBON	180K	5%	1/4W
R327	1-249-435-11	CARBON	33K	5%	1/4W
R328	1-247-872-11	CARBON	51K	5%	1/4W
R329	1-247-870-11	CARBON	43K	5%	1/4W
R330	1-247-872-11	CARBON	51K	5%	1/4W
R331	1-247-872-11	CARBON	51K	5%	1/4W
R332	1-247-881-00	CARBON	120K	5%	1/4W
R333	1-249-438-11	CARBON	56K	5%	1/4W
R334	1-247-876-11	CARBON	75K	5%	1/4W
R335	1-249-436-11	CARBON	39K	5%	1/4W
R336	1-249-435-11	CARBON	33K	5%	1/4W
R337	1-249-440-11	CARBON	82K	5%	1/4W
R338	1-249-441-11	CARBON	100K	5%	1/4W
R339	1-249-438-11	CARBON	56K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-247-881-00	CARBON	120K	5%	1/4W
R342	1-247-884-11	CARBON	160K	5%	1/4W

Ref.No.	Part No.	Description				
R343	1-249-439-11	CARBON	68K	5%	1/4W	
R344	1-249-439-11	CARBON	68K	5%	1/4W	
R345	1-249-441-11	CARBON	100K	5%	1/4W	
R346	1-247-876-11	CARBON	75K	5%	1/4W	
R347	1-247-870-11	CARBON	43K	5%	1/4W	
R348	1-249-438-11	CARBON	56K	5%	1/4W	
R349	1-247-883-00	CARBON	150K	5%	1/4W	
R350	1-247-887-00	CARBON	220K	5%	1/4W	
R351	1-247-878-00	CARBON	91K	5%	1/4W	
R352	1-249-439-11	CARBON	68K	5%	1/4W	
R353	1-247-882-11	CARBON	130K	5%	1/4W	
R354	1-249-441-11	CARBON	100K	5%	1/4W	
R355	1-249-440-11	CARBON	82K	5%	1/4W	
R356	1-247-887-00	CARBON	220K	5%	1/4W	
R358	1-249-405-11	CARBON	100	5%	1/4W	
R359	1-249-405-11	CARBON	100	5%	1/4W	
R361	1-249-441-11	CARBON	100K	5%	1/4W	
R362	1-249-441-11	CARBON	100K	5%	1/4W	
R363	1-249-423-11	CARBON	3.3K	5%	1/4W	
R364	1-249-441-11	CARBON	100K	5%	1/4W	
R365	1-249-425-11	CARBON	4.7K	5%	1/4W	
R366	1-249-420-11	CARBON	1.8K	5%	1/4W	
R367	1-249-441-11	CARBON	100K	5%	1/4W	
R368	1-249-429-11	CARBON	10K	5%	1/4W	
R369	1-249-416-11	CARBON	820	5%	1/4W	
R370	1-249-433-11	CARBON	22K	5%	1/4W	
R371	1-249-429-11	CARBON	10K	5%	1/4W	
R372	1-249-437-11	CARBON	47K	5%	1/4W	
R381	⚠ 1-212-853-00	FUSIBLE	6.8	5%	1/4W	F
R382	1-249-391-11	CARBON	6.8	5%	1/4W	
R383	1-249-431-11	CARBON	15K	5%	1/4W	
R384	1-249-431-11	CARBON	15K	5%	1/4W	
R385	1-249-423-11	CARBON	3.3K	5%	1/4W	
R386	1-249-425-11	CARBON	4.7K	5%	1/4W	
R387	1-247-840-00	CARBON	2.4K	5%	1/4W	
R388	1-249-417-11	CARBON	1K	5%	1/4W	
R389	1-249-437-11	CARBON	47K	5%	1/4W	
R390	1-249-437-11	CARBON	47K	5%	1/4W	
R501	1-249-437-11	CARBON	47K	5%	1/4W	
R502	1-249-437-11	CARBON	47K	5%	1/4W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	
R504	1-249-416-11	CARBON	820	5%	1/4W	
R505	1-249-425-11	CARBON	4.7K	5%	1/4W	
R506	1-249-437-11	CARBON	47K	5%	1/4W	
R507	1-249-423-11	CARBON	3.3K	5%	1/4W	
R508	1-249-437-11	CARBON	47K	5%	1/4W	
R509	1-249-437-11	CARBON	47K	5%	1/4W	
R510	1-249-417-11	CARBON	1K	5%	1/4W	
R511	1-249-437-11	CARBON	47K	5%	1/4W	
R512	1-249-417-11	CARBON	1K	5%	1/4W	
R513	1-249-437-11	CARBON	47K	5%	1/4W	
R514	1-249-413-11	CARBON	470	5%	1/4W	
R515	1-249-441-11	CARBON	100K	5%	1/4W	
R516	1-249-403-11	CARBON	68	5%	1/4W	
R517	1-249-421-11	CARBON	2.2K	5%	1/4W	
R521	1-249-422-11	CARBON	2.7K	5%	1/4W	
R522	1-247-903-00	CARBON	1M	5%	1/4W	

Ref.No.	Part No.	Description			
R523	1-249-432-11	CARBON	18K	5%	1/4W
R524	1-249-430-11	CARBON	12K	5%	1/4W
R525	1-249-432-11	CARBON	18K	5%	1/4W
R526	1-249-430-11	CARBON	12K	5%	1/4W
R527	1-249-426-11	CARBON	5.6K	5%	1/4W
R528	1-249-429-11	CARBON	10K	5%	1/4W
R529	1-249-433-11	CARBON	22K	5%	1/4W
R530	1-249-430-11	CARBON	12K	5%	1/4W
R531	1-249-426-11	CARBON	5.6K	5%	1/4W
R532	1-249-429-11	CARBON	10K	5%	1/4W
R533	1-249-433-11	CARBON	22K	5%	1/4W
R535	1-249-431-11	CARBON	15K	5%	1/4W
R538	1-249-425-11	CARBON	4.7K	5%	1/4W
R539	1-249-430-11	CARBON	12K	5%	1/4W
R540	1-249-431-11	CARBON	15K	5%	1/4W
R541	1-249-431-11	CARBON	15K	5%	1/4W
R542	1-249-429-11	CARBON	10K	5%	1/4W
R543	1-249-431-11	CARBON	15K	5%	1/4W
R544	1-249-431-11	CARBON	15K	5%	1/4W
R545	1-249-430-11	CARBON	12K	5%	1/4W
R546	1-249-430-11	CARBON	12K	5%	1/4W
R547	1-249-430-11	CARBON	12K	5%	1/4W
R548	1-249-430-11	CARBON	12K	5%	1/4W
R549	1-249-437-11	CARBON	47K	5%	1/4W
R550	1-249-437-11	CARBON	47K	5%	1/4W
R551	1-247-895-00	CARBON	470K	5%	1/4W
R552	1-247-895-00	CARBON	470K	5%	1/4W
R553	1-247-895-00	CARBON	470K	5%	1/4W
R554	1-247-895-00	CARBON	470K	5%	1/4W
R555	1-249-393-11	CARBON	10	5%	1/4W
R557	1-249-405-11	CARBON	100	5%	1/4W
R601	1-249-437-11	CARBON	47K	5%	1/4W
R602	1-249-417-11	CARBON	1K	5%	1/4W
R603	1-249-437-11	CARBON	47K	5%	1/4W
R604	1-249-423-11	CARBON	3.3K	5%	1/4W
R605	1-249-433-11	CARBON	22K	5%	1/4W
R606	1-249-433-11	CARBON	22K	5%	1/4W
R607	1-249-423-11	CARBON	3.3K	5%	1/4W
R608	1-249-415-11	CARBON	680	5%	1/4W
R609	1-249-413-11	CARBON	470	5%	1/4W
R610	1-247-729-11	CARBON	15	5%	1/2W
R611	1-249-416-11	CARBON	820	5%	1/4W
R612	1-249-437-11	CARBON	47K	5%	1/4W
R613	1-249-425-11	CARBON	4.7K	5%	1/4W
R614	1-249-417-11	CARBON	1K	5%	1/4W
R615	1-249-417-11	CARBON	1K	5%	1/4W
R616	1-249-437-11	CARBON	47K	5%	1/4W
R617	1-249-425-11	CARBON	4.7K	5%	1/4W
R618	1-249-437-11	CARBON	47K	5%	1/4W
R619	1-249-417-11	CARBON	1K	5%	1/4W
R620	1-249-437-11	CARBON	47K	5%	1/4W
R621	1-249-423-11	CARBON	3.3K	5%	1/4W
R622	1-249-433-11	CARBON	22K	5%	1/4W
R623	1-249-433-11	CARBON	22K	5%	1/4W
R624	1-249-423-11	CARBON	3.3K	5%	1/4W
R625	1-249-415-11	CARBON	680	5%	1/4W
R626	1-249-413-11	CARBON	470	5%	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			
R627	1-247-729-11	CARBON	15	5%	1/2W
R628	1-249-416-11	CARBON	820	5%	1/4W
R629	1-249-437-11	CARBON	47K	5%	1/4W
R630	1-249-425-11	CARBON	4.7K	5%	1/4W
R631	1-249-417-11	CARBON	1K	5%	1/4W
R632	1-249-417-11	CARBON	1K	5%	1/4W
R633	1-249-437-11	CARBON	47K	5%	1/4W
R634	1-249-425-11	CARBON	4.7K	5%	1/4W
R635	1-249-425-11	CARBON	4.7K	5%	1/4W
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-413-11	CARBON	470	5%	1/4W
R703	1-249-423-11	CARBON	3.3K	5%	1/4W
R704	1-249-423-11	CARBON	3.3K	5%	1/4W
R705	1-249-424-11	CARBON	3.9K	5%	1/4W
R707	1-249-413-11	CARBON	470	5%	1/4W
R708	1-249-430-11	CARBON	12K	5%	1/4W
R709	1-249-423-11	CARBON	3.3K	5%	1/4W
R710	1-249-409-11	CARBON	220	5%	1/4W
R711	1-249-413-11	CARBON	470	5%	1/4W
R712	1-249-424-11	CARBON	3.9K	5%	1/4W
R713	1-249-423-11	CARBON	3.3K	5%	1/4W
R714	1-249-430-11	CARBON	12K	5%	1/4W
R715	1-249-431-11	CARBON	15K	5%	1/4W
R716	1-249-423-11	CARBON	3.3K	5%	1/4W
R717	1-249-430-11	CARBON	12K	5%	1/4W
R718	1-249-407-11	CARBON	150	5%	1/4W
R719	1-249-435-11	CARBON	33K	5%	1/4W
R801	1-247-903-00	CARBON	1M	5%	1/4W
R802	1-249-435-11	CARBON	33K	5%	1/4W
R803	1-249-435-11	CARBON	33K	5%	1/4W
R804	1-249-435-11	CARBON	33K	5%	1/4W
R805	1-249-435-11	CARBON	33K	5%	1/4W
R806	1-249-429-11	CARBON	10K	5%	1/4W
R807	1-249-429-11	CARBON	10K	5%	1/4W
R808	1-249-437-11	CARBON	47K	5%	1/4W
R809	1-249-437-11	CARBON	47K	5%	1/4W
R810	1-249-437-11	CARBON	47K	5%	1/4W
R811	1-249-437-11	CARBON	47K	5%	1/4W
R812	1-249-405-11	CARBON	100	5%	1/4W
R813	1-249-405-11	CARBON	100	5%	1/4W
R814	1-249-405-11	CARBON	100	5%	1/4W
R815	1-249-405-11	CARBON	100	5%	1/4W
R816	1-249-405-11	CARBON	100	5%	1/4W
R817	1-249-405-11	CARBON	100	5%	1/4W
R901	1-249-426-11	CARBON	5.6K	5%	1/4W
R902	1-249-429-11	CARBON	10K	5%	1/4W

Ref.No.	Part No.	Description			
R903	1-249-426-11	CARBON	5.6K	5%	1/4W
R904	1-249-429-11	CARBON	10K	5%	1/4W
R905	1-249-402-11	CARBON	56	5%	1/4W
R906	1-249-407-11	CARBON	150	5%	1/4W
R907	1-249-402-11	CARBON	56	5%	1/4W
R908	1-249-407-11	CARBON	150	5%	1/4W
R909	1-249-403-11	CARBON	68	5%	1/4W
R910	1-249-426-11	CARBON	5.6K	5%	1/4W
R911	1-249-429-11	CARBON	10K	5%	1/4W
R912	1-249-433-11	CARBON	22K	5%	1/4W
R913	1-249-426-11	CARBON	5.6K	5%	1/4W
R914	1-249-429-11	CARBON	10K	5%	1/4W
R915	1-249-433-11	CARBON	22K	5%	1/4W
R916	1-249-402-11	CARBON	56	5%	1/4W
R917	1-249-407-11	CARBON	150	5%	1/4W
R918	1-249-402-11	CARBON	56	5%	1/4W
R919	1-249-407-11	CARBON	150	5%	1/4W
R920	1-249-403-11	CARBON	68	5%	1/4W
R921	1-249-422-11	CARBON	2.7K	5%	1/4W
R922	1-249-424-11	CARBON	3.9K	5%	1/4W
R923	1-249-428-11	CARBON	8.2K	5%	1/4W
R924	1-249-404-00	CARBON	82	5%	1/4W
R925	1-249-409-11	CARBON	220	5%	1/4W
R926	1-249-409-11	CARBON	220	5%	1/4W
R927	1-249-403-11	CARBON	68	5%	1/4W
R928	1-249-431-11	CARBON	15K	5%	1/4W
R929	1-249-429-11	CARBON	10K	5%	1/4W
R930	1-249-433-11	CARBON	22K	5%	1/4W
R932	1-249-422-11	CARBON	2.7K	5%	1/4W
R933	1-249-424-11	CARBON	3.9K	5%	1/4W
R934	1-249-428-11	CARBON	8.2K	5%	1/4W
R935	1-249-433-11	CARBON	22K	5%	1/4W
R936	1-249-422-11	CARBON	2.7K	5%	1/4W
R937	1-249-424-11	CARBON	3.9K	5%	1/4W
R938	1-249-428-11	CARBON	8.2K	5%	1/4W
R939	1-249-433-11	CARBON	22K	5%	1/4W
RV101	1-228-994-00	RES, ADJ, CARBON 10K (DECK A:PB LEBEL L CH)			
RV102	1-228-994-00	RES, ADJ, CARBON 10K (DECK B:PB LEBEL L CH)			
RV103	1-228-994-00	RES, ADJ, CARBON 10K (DECK A:REC GAIN L CH)			
RV201	1-228-994-00	RES, ADJ, CARBON 10K (DECK A:PB LEBEL R CH)			
RV202	1-228-994-00	RES, ADJ, CARBON 10K (DECK B:PB LEBEL R CH)			
RV203	1-228-994-00	RES, ADJ, CARBON 10K (DECK A:REC GAIN R CH)			

Ref.No.	Part No.	Description
RV301	1-237-888-11	RES, VAR, CRBON 20K/20K (REC LEBEL)
RV601	1-228-994-00	RES, ADJ, CARBON 10K(DECK A:HIGH SPEED)
RV602	1-228-994-00	RES, ADJ, CARBON 10K (DECK A:NORMAL SPEED)
RV603	1-228-994-00	RES, ADJ, CARBON 10K(DECK B:HIGH SPEED)
RV604	1-228-994-00	RES, ADJ, CARBON 10K (DECK B:NORMAL SPEED)
RY301	1-515-614-11	RELAY (REC/PB)
S1A	1-570-720-11	SWITCH, PUSH (1 KEY)(HALF DET)
S1B	1-570-720-11	SWITCH, PUSH (1 KEY)(HALF DET)
S2B	1-570-720-11	SWITCH, PUSH (1 KEY)(ERASE PROOF(▶))
S3A	1-570-721-11	SWITCH, LEAF (HEAD UP/DOWN)
S3B	1-570-721-11	SWITCH, LEAF (HEAD UP/DOWN)
S4A	1-570-721-11	SWITCH, LEAF (DIRECTION)
S4B	1-570-721-11	SWITCH, LEAF (DIRECTION)
S5B	1-570-720-11	SWITCH, PUSH (1 KEY)(ERASE PROOF(◀))
S6A	1-570-720-11	SWITCH, PUSH (1 KEY)(CHROME DET)
S6B	1-570-720-11	SWITCH, PUSH (1 KEY)(CHROME DET)
S7B	1-570-723-11	SWITCH, PUSH (1 KEY)(METAL DET)
S901	1-554-303-21	SWITCH, KEY BOARD (DECK A:■)
S902	1-554-303-21	SWITCH, KEY BOARD (DECK A:◀◀)
S903	1-554-303-21	SWITCH, KEY BOARD (DECK A:▶▶)
S904	1-554-303-21	SWITCH, KEY BOARD (DECK A:▶)
S905	1-554-303-21	SWITCH, KEY BOARD (DECK A:◀)
S906	1-554-303-21	SWITCH, KEY BOARD (DECK A:❚❚)
S907	1-554-303-21	SWITCH, KEY BOARD (DECK B:■)
S908	1-554-303-21	SWITCH, KEY BOARD (DECK B:◀◀)
S909	1-554-303-21	SWITCH, KEY BOARD (DECK B:▶▶)
S910	1-554-303-21	SWITCH, KEY BOARD (DECK B:●)
S911	1-554-303-21	SWITCH, KEY BOARD (DECK B:▶)
S912	1-554-303-21	SWITCH, KEY BOARD (DECK B:◀)
S913	1-554-303-21	SWITCH, KEY BOARD (DECK B:❚❚)
S914	1-554-303-21	SWITCH, KEY BOARD (DECK B:O)
S915	1-554-303-21	SWITCH, KEY BOARD (AMS/BLANK SKIP)
S916	1-554-303-21	SWITCH, KEY BOARD (DUBBING:HIGH SPEED)
S917	1-554-303-21	SWITCH, KEY BOARD (DUBBING:NORMAL SPEED)
S918	1-554-303-21	SWITCH, KEY BOARD (AUTO PAUSE)
S919	1-571-296-11	SWITCH, SLIDE (TIMER)
S920	1-571-296-11	SWITCH, SLIDE (DIRECTION MODE)
S921	1-571-296-11	SWITCH, SLIDE (DOLBY NR)
S922	1-554-303-21	SWITCH, KEY BOARD (RESET)
S923	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S924	1-554-303-21	SWITCH, KEY BOARD (A/B)
S925	1-554-303-21	SWITCH, KEY BOARD (CLEAR)
S926	1-554-303-21	SWITCH, KEY BOARD (CHECK)
S927	1-554-303-21	SWITCH, KEY BOARD (DISPLAY)
S928	1-554-303-21	SWITCH, KEY BOARD (START)
S929	1-554-303-21	SWITCH, KEY BOARD (SET)
S930	1-554-303-21	SWITCH, KEY BOARD (+)
S931	1-554-303-21	SWITCH, KEY BOARD (-)
S932	1-571-297-11	SWITCH, PUSH (1 KEY)(POWER)
SPK101	1-235-186-00	ENCAPSULATED COMPONENT
SPK201	1-235-186-00	ENCAPSULATED COMPONENT
T301	1-433-308-11	TRANSFORMER, BIAS OSCILLATION
T701	⚠.1-449-364-11	(AEP,UK)...........TRANSFORMER, POWER
T701	⚠.1-449-365-11	(E,Saudi Arabia)...TRANSFORMER, POWER
TP501	*1-560-060-00	PIN, CONNECTOR 2P
TP601	*1-560-060-00	PIN, CONNECTOR 2P (NH)
VS901⚠	1-570-307-11	(E,Saudi Arabia) ...SWITCH, VOLTAGE SELECTOR
X501	1-567-771-11	VIBRATOR, CERAMIC (6MHz)
X502	1-527-532-00	OSCILLATOR, CERAMIC (400kHz)
X801	1-567-772-11	VIBRATOR, CERAMIC (4.19MHz)

ACCESSORY & PACKING MATERIAL

Part No.	Description
⚠.1-506-401-00	(Saudi Arabia)...ADAPTOR, CONVERSION
⚠.1-526-565-00	(E)......AC PLUG ADAPTOR
1-551-734-11	CORD, CONNECTION (RK-74A)
1-558-233-11	CORD (WITH CONNECTOR)(CONTROL S) 4P
3-343-602-01	CUSHION
*3-343-682-01	INDIVIDUAL CARTON
3-786-204-11	MANUAL, INSTRUCTION
3-786-204-41	(AEP)...MANUAL, INSTRUCTION

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Troubleshooting Guide

Before proceeding with these trouble checks, first check these basic points:

• The power cord is firmly connected.
• Amplifier connections are firmly made.
• Heads, capstans and pinch rollers are clean.
• The amplifier controls and switches are set correctly.

FUNCTION BUTTONS AND TAPE TRANSPORT PROBLEMS

Symptom	Cause	Remedy
Function buttons do not activate.	Cassette holder is not fully closed.	Close the holder completely.
Playback or recording begins just as the power is turned on.	The TIMER switch is not set to OFF.	Set the TIMER switch to OFF.
● button does not activate.	No cassette in the holder.	Insert a cassette.
	Tab has been removed from the cassette.	Cover the hole with plastic tape.
Automatic shut-off mechanism activates before the tape comes to its end.	Tape is slack.	Take up the tape slack.
	Cassette shell is deformed.	Use another cassette.
	The MEMORY function is activated.	Press the MEMORY button to deactivate the function.
	The inside of the cassette holder is illuminated by strong light.	Remove the light source.
Excessively loud tape transport noise when rewinding or fast-forwarding	This depends on the cassette used and is not a problem.	—

RECORDING AND PLAYBACK PROBLEMS

Symptom	Cause	Remedy
Auto reverse function does not operate.	DIRECTION MODE selector is set to ⇄.	Set DIRECTION MODE to ⊂⊃.
Recording or playback cannot be made or there is a decrease in sound level.	Record/playback and erase heads are either dirty or magnetized.	Clean or demagnetize the heads.
	Improper connection	Make connections properly.
	Improper setting of the amplifier controls	Set the amplifier controls to the appropriate positions.
Excessive wow, flutter or dropout	Head, capstan or pinch roller is dirty.	Clean in accordance with instructions.
Incomplete erasure	Erase head is dirty.	Clean the erase head.
Increased noise or poor reproduction in high frequencies	Head is magnetized.	Demagnetize the head.
Unbalanced tone in high frequencies	Improper setting of the DOLBY NR switch.	When playing back, set the switch to the same position used in recording.
	The unit is placed near a television set.	Move the unit away from the television set.
The desired selection cannot be located even if you activate the AMS.	There is noise in the space between selections.	—
	The space is less than 4 seconds long.	Press O to insert a longer blank space.
	The ◀◀ or ▶▶ button is pressed immediately before or after the beginning of the following selection.	—
Playback or fast-winding may begin in the middle of the slection when AMS or blank skip is activated.	The following will be treated as blanks: —a long pause in the music —a passage of low frequencies or very low volume —gradual increase or decrease of volume	—

NOISE

Symptom	Cause	Remedy
Hum noise	The unit is stacked on or under the amplifier.	Separate the units.
Noise is recorded.	Recording was made near such equipment as a television set or a color monitor, and the interference has affected the recording on the tape and the Dolby NR system.	Move the unit away from television set or color monitor.

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Audio Group

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